Supplementary Material S1: Amino acid sequences of *Bactrocera cucurbitae* and other insects used in phylogenetic

>BcucOBP1

MSLTMDEERHRDLLEARQQQLQQEQARPALTAAVLRSCMKETELSMAELHRFRLSLLSRDPEVLNGTNDPTTELPNLSVMEEFSEYSEIDGIVYEPEVEINASHDNALEYEDPFTFKSNENTDESLQCFAYCLYEQLGLISKGVYMEEELFAKLYAIVGRERHLVKECMNLNTNNKCESSYKMHLCYARLKTLEEENRLRKLMEDAYNGERDDEESEEIPQAETTQETYVMNEIGQTEST

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>BcucOBP2

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>BcucOBP3

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>BcucOBP4

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>BcucOBP5

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>BcucOBP6

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>BcucOBP7

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>BcucOBP8

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>BcucOBP9

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>BcucOBP10

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>BcucOBP11

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>BcucOBP12

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>BcucOBP13

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>BcucOBP14

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>BcucOBP15

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>BcucOBP16

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>BcucOBP17

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>BcucOBP18

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>BcucOBP19

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>BcucOBP20

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>BcucOBP21

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>BcucOBP22

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>BcucOBP23

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>BcucOBP24

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>BcucOBP25

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>BcucOBP26

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>BcucOBP27

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>BcucOBP28

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>BcucOBP29

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>BcucOBP30

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>BcucOBP31

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>BcucOBP32

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>BcucOBP33

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>BcucOBP34

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>BcucOBP35

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>CcapOBP99a-like1

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>CcapOBP19d.1

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>CcapOBP99a-like2

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>CcapOBP56h

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>CcapOBP99a-like3

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>CcapOBP99a-like4

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>CcapOBPA10

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>CcapOBP56a

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>CcapOBPA5

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>CcapOBP69a

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>CcapOBP83a

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>CcapOBP19d-like

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>CcapOBP56h-like

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>CcapOBP19a-like

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>CcapOBP84a

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>CcapOBP28a

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>CcapOBP71

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>CcapOBP56d

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>CcapOBP99a

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>CcapOBP99a.1

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>CcapOBP99a.2

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>CcapOBP99a.3

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>CcapOBP19a

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>CcapOBP99a.4

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>CcapOBP56a.1

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>CcapOBP56a-like

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>CcapOBP19d.2

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>CcapOBP68

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>CcapOBP56d-like

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>CcapOBPLush

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>BcorOBP99d

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>BcorOBP99c.2

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>BcorOBP99c.1c

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>BcorOBP99c.1a

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>BcorOBP99b

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>BcorOBP84a.2

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>BcorOBP83g

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>BcorOBP83ef

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>BcorOBP83a

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>BcorOBP69a

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>BcorOBP59a

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>BcorOBP56g

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>BcorOBP56d

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>BcorOBP56c

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>BcorOBP56a

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>BcorOBP50e.2

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>BcorOBP50e.1

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>BcorOBP49a

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>BcorOBP19d.3

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>BcorOBP19d.2

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>BcorOBP19d.1

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>BcorOBP19c

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>BcorOBP19b.2

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>BcorOBP19b.1

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>BcorOBP8a

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>BcorOBPLush

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>DmelOBP99a

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>DmelOBP56d

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>DmelOBP83b

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>DmelOBP56a

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>DmelOBP99d

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>DmelOBP56f

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>DmelOBP19b

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>BdorOBP70

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>BdorOBP56h.1

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>BdorOBP99a.2

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>BdorOBP83a

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>BdorOBP28a

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>BdorOBP84a.1

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>BdorOBP99a.3

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>BdorOBP56d.2

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>BdorOBP19a

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>BdorOBP19d.1

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>BdorOBP19d.2

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>BdorOBP84a.2

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>BdorOBP19d.3

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>BdorOBP56h

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>BdorOBP99a.4

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>BdorOBPLush

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>BdorOBP19d.4

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>BdorOBP99a.5

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>BdorOBP57c

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>BdorOBP99a.6

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>BdorOBP69a.1

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>BdorOBP99a.7

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>BdorOBP68

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>BdorOBP6

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>BdorOBP56h.2

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>BdorOBP19d.5

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>BdorOBP69a.2

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>BdorOBP99a.8

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>BdorOBP99a-like

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>BdorOBP56a-like

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>BdorOBPA10

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>BdorOBP56a.1

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>BdorOBP99a.9

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>BdorOBPA5.1

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>BdorOBPA5.2

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>BdorOBP56h.3

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>BdorOBP56d.3

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>BdorOBP99a.10

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>BdorOBP99a.11

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>BdorOBP28a-like

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>BlatOBP99a-like1

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>BlatOBP99b

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>BlatOBP99a-like2

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>BlatOBP99a-like3

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>BlatOBP56h-like

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>BlatOBPLush

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>BlatOBP19a-like

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>BlatOBP56a-like

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>BlatOBP84a-like

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>BlatOBP19d

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>BlatOBP19a

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>BlatOBP56a.1

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>BlatOBP56d-like3

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>AludOBP99a3

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>AludOBP73a

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>AludOBP19b

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>AludOBP59a

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>AludOBP19a2

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>AludOBP56a

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>AludOBP49a2

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>AludOBP19c

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>AludOBP83a

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>AludOBP99a-like

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>AludOBP50e

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>AludOBP99c

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>AludOBP84a

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>AludOBP99d

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>AludOBP99b

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>AludOBP83g

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>AludOBP50a

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>AludOBP8a

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>AludOBP19d2

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>AludOBP56d

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>ZtauOBP99a

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>ZtauOBP56d-like

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>ZtauOBP19d

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>ZtauOBP56h

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>ZtauOBP24

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>ZtauOBP83a

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>ZtauOBP99a-like

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>ZtauOBP56a-like

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>ZtauOBP19d-like

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>ZtauOBP57c

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>ZtauOBP99a-4

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>ZtauOBP99a-3

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>ZtauOBP99a-2

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>ZtauOBP67-like

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>ZtauOBP19a

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>ZtauOBP28a-like

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>ZtauOBP19d-like4

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>ZtauOBP19d-like3

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>ZtauOBP19d-like2

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>ZtauOBP84a-like2

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>ZtauOBP84a-like1

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>ZtauOBP56h-like

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>ZtauOBP2a

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>RpomOBP56h-like

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>RpomOBP84a-like

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>RpomOBP56h-like1

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>RpomOBP84a-like1

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>RpomOBP56h-like2

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>RpomOBP56h-like3

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>RpomOBP57c-like

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>RpomOBP99a-like

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>RpomOBP28a-like

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>RpomOBP19d-like

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>RpomOBP19d-like1

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>RpomOBP19a-like

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>RpomOBP56d-like

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>RpomOBP68

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>RpomOBP19d-like2

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>RpomOBP28a-like1

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>RpomOBP19d

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>RpomOBP69a-like

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>RpomOBP56h-like4

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>RpomOBP99a.1

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>RpomOBP99a.2

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>RpomOBP19a-like1

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>RpomOBP56a-like1

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>RpomOBP68-like

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>CstyOBP26

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>CstyOBP25

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>CstyOBP23

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>CstyOBP20

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>CstyOBP15

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>CstyOBP10

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>CstyOBP9

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>CstyOBP8

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>CstyOBP7

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>CstyOBP6

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>CstyOBP5

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>CstyOBP4

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>CstyOBP3

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>CstyOBP2

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>BcucCSP1

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>ZtauCSP3

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>BcorCSP3

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>BdorCSP2/BdorCSPOSD

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>BdorCSP3

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>BtryCSPA10

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>BlatCSPA10

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>BoleCSPA10

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>CcapCSPA10

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>RzepCSPA10

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>PutiCSPOSD

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>CstyCSPOSD

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>LcupCSPA10

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>DmelCSPOSD

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>RpomCSPA10

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>DmelCSPA10

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>BcucSNMP1

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>BcucSNMP2

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>BcucSNMP3

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>BcorSNMP2

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>BcorSNMP1b

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>BcorSNMP1a

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>CstySNMP3

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>CcapSNMP2

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>CcapSNMP1

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>CstySNMP2

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>CstySNMP1

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>ZtauSNMP2

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>ZtauSNMP1b

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>ZtauSNMP1a

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>BdorSNMP2

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>BdorSNMP1b

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>BdorSNMP1a

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>BoletSNMP1

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>BoletSNMP2

MTTAKIAKSLFPGSIPWYSTKMFHWSLIVSLMGLLTAALGAYCGWFLFPSMVDKKVEESVIIADGSEQYKRFVQLPQPLTFKVYIFNVTNAHKIQQGAIPIVEEIGPYVYRQYRRKKVKHFSRDGSKISYVQDQRFEFDEVASAPYTQSDHIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNRTPGVRILKRLMERIRGKRKSVLTIAENDPGLSLLLVHLNANLKAVFNDPKSMFLDTTVREFLFDGVRFCINTNGIAKAICNQIKEGGSKTIRELSDGSLAFSFFNHKNGTGNEVYEVHTGKGDAQRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVQLFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNMFLKSINRISITENLTTVLMPAIWVEEGIQLNSEMVAFFKKKLINSLKTLNIIHWASICGGIGVAAICLIYYVIQRRKPEAEVAPLK

>BlatSNMP1

MKVERHKLLIASVAAMLFGVIFGWVGFPKILKMMIKKQVSLKPGTEIRDLWTQTPFPLHFYIYVFNITNPDEVMNGEKPNLQEIGPFVFDEWKDKYDLVDDPLEDSISFNMRNTFYFNEKDSKGLTGEELITIPHPLLVPISVVVQRDRAAMLDLVAKAINIVFAGQKAVITVKFMDVFFRGLYVDCSSAEFAAKALCTAFYTGEVKQARQVNSTHFLFSFMGNNNHTDGGRFSVCRGVKNVSKLGKVIRFGDEPTLDIWGGDECNEFIGTDSTIFAPFMTKEQGLWAFTPDVCRSFGATYKRKSSYHGMPAMRYHMDLGDIKADPSLHCFCDDPEDVDSCPPKGTMNLEPCVGAPIMASMPHFFNADPKLLEEVNGLSPNEKDHAVFIDFELTSGTPFQAAKRLQFNLDMEPVEKIEPTKNLRKMIFPLFWIEEGVALNKTFTNMLKYTLFLGLKFNSALRWSLITMALVGLMSTCYLYYKKSDSLDITVPPKAIKELANKVEDVKPLPPEDKKPVPPIAQADLSNRRDAMDRF

>BlatSNMP2

MFHWSLIVSLLGLLTAALGAYCGWFLFPNIVDKKVEESVIIADGSEQYKRFVQLPQPLTFKVYIFNVTNAHKIQQGAIPIVEEIGPYVYRQYRRKKVKHFSRDGSKISYVQDQHFEFDEEASAPYTQSDHIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNRTPGVRVLKRLMERIRGKRKSVLTIAENDPGLSLLLVHLNANLKAVFNDPKSMFLATTVREFLFDGVRFCINTNGIAKAICNQIKEGGSKTIRELSDGSLAFSFFNHKNGTGNEVYEVHTGKGDAQRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVQLFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNMFLKSINRISITENLTTVLMPAIWVEEGIQLNSEMVAFFKKKLINSLKTLNIIHWASICGGIGVAAICLIYYVIQRRKPEAEVAPLK

>BneoSNMP1

MKVERHKLLIASVAAMLFGVIFGWVGFPKILKMMIKKQVSLKPGTEIRDLWTQTPFPLHFYIYVFNITNPDEVMNGEKPNLQEIGPFVFDEWKDKYDLADDPLEDSISFNMRNTFYFNEKDSKGLTGEELITIPHPLLVPISVVVQRDRAAMLDLVAKAINIVFAGQKAVITVKFMDVFFRGLYVDCSSTEFAAKALCTAFYTGEVKQAKQVNSTHFLFSFMANNNHTDGGRFTVCRGVKNVSKLGKVIRFGDEPTLDVWGGEECNEFIGTDSTIFAPFMTKEQGLWAFTPDVCRSFGATYKRKSSYHGMPAMRYHMDLGDIKADPSLHCFCDDPEDVDSCPPKGTMNLEPCVGAPIMASMPHFFNADPKLLEEVNGLSPNEKDHAVFIDFELTSGTPFQAAKRLQFNMDMEPVEKIEPTKNLRKMIFPLFWIEEGVALNKTFTNMLKYTLFLGLKFNSALRWSLITMALVGLMSTCYLYYKKSDSLDITVPPKAIKELANKVEDVKPLPPEDKKPVPPIAQADLSNRRDAMDRF

>BneoSNMP2

MFHWSLIVSLLGLLTAALGAYCGWFLFPNMVDKKVEESVIIADGSEQYKRFVQLPQPLTFKVYIFNVTNAHKIQQGAIPIVEEIGPYVYRQYRRKKVKHFSRDGSKISYVQDQHFEFDEEASAPYTQSDHIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNRTPGVRVLKRLMERIRGKPPYKWMYNIFNEIFKQVKSVLTIAENDPGLSLLLVHLNANLKAVFNDPKSMFLDTTVREFLFDGVRFCINTNGIAKAICNQIKEGGSKTIRELSDGSLAFSFFNHKNGTGNEVYEVHTGKGDAQRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVQLFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNMFLKSINRISITENLTTVLMPAIWVEEGIQLNSEMVAFFKKKLINSLKTLNIIHWASICGGIGVAAICLIYYVIQRRKPEAEVAPLK

>AludSNMP2

MQQASHVGAFAMRHSTHQQQKLQQLRSTPHSRRIFVHELHGGATVARFDSSAYQSNIAKSLFPVSVPWYSSKMIHWSLIVSFIGLLTAALGAYCGWFLFPSMVDKKVEESVIIADGSEQYKRFVQLPQPLTFKVYIFNVTNAQKIQQGAIPIVEEVGPYVYRQYRRKKVKHFSRDGSKISYVQDTRFEFDEEASAPYTQSDRIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNHTPGVRILKRLMERIRGKRKSVLQISENDPGLSLLLVHLNANLKAVFNDPKSMFLDTTVREFLFDGVRFCINTNGIAKAICNQIKEGGSKTIRELSDGSLAFSFFNHKNGTGKEVYEVHTGKGDAQRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVELFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNMFLKSINRISITENLSTVLMPAIWVEEGIQLNSEMVAFFKKKLINSLKTLNIIHWASLCGGIGVAAICLIYYVVQRRRPETEVAPLK

>RzepSNMP2

MQQTGHVYSHIIRGSTRPPYQPQYQRPPPPQPRRVFVQDFQVDATAPAFDSSAYKSNIAKSLFPGSVPRCSSKMLHWSLIVSFIGLLTAALGAYCGWFLFPSMVDKKVEENVIIADGSEQYKRFVQLPQPLIFKVYIFNVTNAQKVQQGAIPIVQEVGPYVYRQYRRKKVKHFSRDGSKISYVQDQHFEFDEEASAPYTQSDHIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNHTPGVRILKRLMERIRGKRKSVLQISENDPGLSLLLVHLNANLKAVFNDPKSMFLDTTVREFLFDGVRFCINPNGIAKAICNQIKEGGSKTIREMSDGSLAFSFFNHKNGTGKEVYEVHTGKGDARRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVELFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTRMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNXTIKSEELRPINTLPNLEKILETVVKNQLLNYIESNKILIKEQSGFRANHSCETALNLILSQQWKEDLNSKKTILAMFFGP

>RzepSNMP1

MQVQRQKLLIASVAAMAFGLLFGWVGFPKILKAMIKKQVSLKPGTEIRDLWTQTPFPLHFYIYVFNITNPDEVINGGKPNLQEIGPFVFDEWKDKYDLVDDAVEDSISFNMRNTFYYNAKASNGLTGEELITIAHPLLVPISVVVQRDRAALLDLAAKAISIVFAGEKAVITAKFMDLFFRGLYVDCSSEEFASKALCTAFYTGEVKQAKQVNATHFLFSFMANNNHTDAGRFTVCRGVKNVSKLGKVIRFGDEPTLDIWPGDECNEFIGTDSTIFAPFMTKEQGLWAFTPDLCRSVGALYKRKSSYHGMPAMRYHMDLGDIKSDPSLHCFCDDPEDIETCPPKGTMNLEPCVGAPIIASMPHFYNADPSLLEQVNGLSPNEKDHAVFIDFELTSGTPFQAAKRLQLNLDMEPVEKIEPVRNLRKMILPLFWVEEGVALNKTFTNMLKYTLFLGLKVNSALRWTLITMALVGFMSTSYLYYKKSDSLDITVPPKVIPEPSNKVEDVKPAADKLNAPSITQADLSNRRLPVDRF

>RpomSNMP1

MQVQRQKLLIASVAAMAFGLLFGWVGFPKILKAMIKKQVSLKPGTEIRDLWTQTPFPLHFYIYVFNITNPDEVINGGKPNLQEIGPFVFDEWKDKYDLVDDAVEDSISFNMRNTFYYNAKASNGLTGEELITIAHPLLVPISVVVQRERAAMLDLVAKAISIVFAGEKAIITAKFMDLFFRGLYVDCSSEEFASKALCTAFYTGEVKQAKQVNATHFLFSFMANNNHTDAGRFTVCRGVKNVSKLGKVIRFGDEPTLDIWPGDECNEFIGTDSTIFAPFMTKEQGLWAFTPDLCRSFGALYKRKSSYHGMPAMRYHMDLGDIKSDPSLHCFCDDPEDIETCPPKGTMNLEPCVGAPIIASMPHFYNADPSLLEQVNGLSPNEKDHAVFIDFELTSGTPFQAAKRLQFNLDMEPVEKIEPVRNLRKMILPLFWVEEGVALNKTFTNMLKYTLFLGLKFNSALRWTLITMALVGFMSTSYLYYKKSDSLDITVPPKVIPEPSNKVEDVKPAADKVNAPSITQADLSNRRLPVDRF

>RpomSNMP2

MTTANIAKSLFPGSVPRCSSKMLHWSLIVSFIGLLTAALGAYCGWFLFPSMVDKKVEENVIIADGSEQYKRFVQLPQPLIFKVYIFNVTNAQKVQQGAIPIVQEVGPYVYRQYRRKKVKHFSRDGSKISYVQDQHFEFDEEASAPYTQSDHIVVLNMHMNAFLQVFEREITDIFQGFANRLNHRLNHTPGVRILKRLMERIRGKRKSVLQISENDPGLSLLLVHLNANLKAVFNDPKSMFLDTTVREFLFDGVRFCINPNGIAKAICNQIKEGGSKTIREMSDGSLAFSFFNHKNGTGKEVYEVHTGKGDARRVLEIQKLDDSHNLQVWLNGSEGETSMCNQINGTDASSYPPFRKRGDSMYIFSADICRSVELFYQSDIQYQGIPGFRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTRMIRGLRPDAKKHQTFVDVQHLTGTPLQGGKRVQFNMFLKTINRISITENLTTVLMPAIWVEEGIQLNSEMVAFFKKKLINSLKTLNIIHWASLCGGIGVAAICLIYYVIQRRKPEAEVAPLK

>DmelSNMP2

MIHWSLIVSALGVCVAVLGGYCGWILFPNMVHKKVEQSVVIQDGSEQFKRFVNLPQPLNFKVYIFNVTNSDRIQQGAIPIVEEIGPYVYKQFRQKKVKHFSRDGSKISYVQNVHFDFDAAASAPYTQDDRIVALNMHMNAFLQVFEREITDIFQGFANRLNSRLNQTPGVRVLKRLMERIRGKRKSVLQISENDPGLALLLVHLNANLKAVFNDPRSMSVSTSVREYLFDGVRFCINPQGIAKAICNQIKESGSKTIREKSDGSLAFSFFGHKNGSGHEVYEVHTGKGDPMRVLEIQKLDDSHNLQVWLNASSEGETSVCNQINGTDASAYPPFRQRGDSMYIFSADICRSVQLFYQTDIQYQGIPGYRYSIGENFINDIGPEHDNECFCVDKLANVIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYRKMIRGLKPDAKKHQTFVDVQSLTGTPLQGGKRVQFNMFLKSINRIGITENLPTVLMPAIWVEEGIQLNGEMVAFFKKKLISTLKTLNIVHWATLCGGIGVAVACLIYYIYQRGRVVEPPVK

>DmelSNMP1

MQVPRVKLLMGSGAMFVFAIIYGWVIFPKILKFMISKQVTLKPGSDVRELWSNTPFPLHFYIYVFNVTNPDEVSEGAKPRLQEVGPFVFDEWKDKYDLEDDVVEDTVSFTMRNTFIFNPKESLPLTGEEEIILPHPIMLPGGISVQREKAAMMELVSKGLSIVFPDAKAFLKAKFMDLFFRGINVDCSSEEFSAKALCTVFYTGEIKQAKQVNQTHFLFSFMGQANHSDSGRFTVCRGVKNNKKLGKVVKFADEPEQDIWPDGECNTFVGTDSTVFAPGLKKEDGLWAFTPDLCRSLGAYYQHKSSYHGMPSMRYTLDLGDIRADEKLHCFCEDPEDLDTCPPKGTMNLAACVGGPLMASMPHFYLGDPKLVADVDGLNPNEKDHAVYIDFELMSGTPFQAAKRLQFNLDMEPVEGIEPMKNLPKLILPMFWVEEGVQLNKTYTNLVKYTLFLGLKINSVLRWSLITFSLVGLMFSAYLFYHKSDSLDINSILKDNNKVDDVASTKEPLPSANPKQSSTVHPVQLPNTLIPGTNPATNPATHHKMEHRERY

>LserSNMP1

MQINRNRLLIVSGGVLVFAIMNGWLIFPKILKLVLKKQVNLKPGSDIRELWENTPFPLHFYFYVFNITNPDEFLNGAKPNLQEIGPFVFDEWKSKYDLEDNDEEDTVTYHMRNTFIFNAKASAPLTGEEVITMVHPLIAPIAVVVLREKAAMMDLIVKAIEIVFRGHKGVLTAPFMDIFFRGFYVDCSSEEFASKALCTAFYTGDVKQAQQVNDTHFLFSFMRAANNSDAGKFTACRGVKNVHKMGKIILFQDEPELDVWAGDACNQLIGTDSTVFPPFLHKDEGLWAFTPDLCRSLGAHYVRKSSYSGLPASFFSLDFGDLKNTPELHCFCDDPDDPESCPPKGTMSLQACNGAPILASLPHFYNADPKLQEGVNGLNPNEHDHAIYIDFELMSGTPLRAGKRLQFSLDLEPVEAIEQVSKVPRVVLPMFWVEEGAALNKTYVNMLKYTLFLGLRFNVGLRWTLITLSLLGLMGGGYLYMKKTDSLDITLPNKDNKVSNVKPVSATTAPVEIKPPPHPLAQADLTNQKVEKF

>LserSNMP2

MFKVFHWSLMGAGLGLLVSMLGFYCGWFLFPTMIHKKVEESVIIADGSEQYKRFIQTPQPLTFKVYIFNVTNPHKVQQGALPIVKEIGPYVYKQYRAKKVKHFSHDGSKITFVQDQLYTFDAEASAPFKESDHIVALNMHMNAFLQVFEREITDILQGFANRINSRLNRTPGVRVLKRLMDRIRGKRKSVLQIGENDPSLALLLVHLNANLKAIFNDPKTMFVHTTVKEYLFDGVRFCINPQGLAKAICNQIKDGGSKTIRELKDGSLAFSFFNHKNGTGHDVYEVHTGKGDAMRVLEIQKLDDNHHLQVWLNSSDNNGTSKCNQINGTDASMYPPFRQKGDSMYIFSADICRSVQLFYQKEIMYKGIPGYRYSIGENFVNDIGPEHDNECFCVDKLTNIIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKTIRGLNPDAQKHQTFVDVQHLTGVPLQGGKRVQFNMFLKSINRITITENLTTVLMPAIWVEEGIELNGEMVTFFKKRLINTLKTLNVVQWAALFGGIGVAAICLIYYVVQSRKPAAVVEAPLK

>LcupSNMP2

MHTKGAKKEKKQRRSNEKQWLNKRRRVLRMGIISKQKFNFKHIKSDSEIKSVIIADGSEQYKRFIQTPQPLTFKVYIFNVTNPHKVQQGALPIVKEIGPYVYKQYRAKKVKHFSHDGSKITFVQDQLYTFDAEASAPFRESDHIVALNMHMNAFLQVFEREITDILQGFANRINSRLNRTPGVRVLKRLMDRIRGKRKSVLQIGENDPSLALLLVHLNANLKAIFNDPKTMFVHTTVKEYLFDGVRFCINPQGLAKAICNQIKDGGSKTIRELKDGSLAFSFFNHKNGTGHDVYEVHTGKGDAMRVLEIQKLDDNHHLQVWLNSSDNNGTSKCNQINGTDASMYPPFRQKGDSMYIFSADICRSVQLFYQKEIMYKGIPGYRYSIGENFVNDIGPEHDNECFCVDKLTNIIKRKNGCLYAGALDLTTCLDAPVILTLPHMLGASNEYTKTIRGLNPDAKKHQTFVDVQHLTGVPLQGGKRVQFNMFLKSINRITITENLTTVLMPAIWVEEGIELNGEMVTFFKKRLINTLKTLNVVQWAALFGGIGVAAICLIYFVVQRRKAVAVVEAPLK

>LcupSNMP1

MQINRNRLLLVSGGVFVFAIMNGWLIFPKILKFVLKKQVNLKPGSDIRELWENTPFPLHFYFYVFNITNPDEFLNGAKPNLQEIGPFVFDEWKSKFDLEDDDEEDTVTYHMRNTFIFNAKASAPLTGEEVITMVHPLIAPIAVVVLREKAAMMELIVKAIEIVFRGHKGVLTAPFMDIFFRGFYVDCSSEEFASKALCTAFYTGDVKQAQQVNDTHFLFSFMQAANNSDAGKFTACRGVKNVHKMGKIILFQDEPELDVWAGDACNQLIGTDSTVFPPFLHKDEGLWAFTPDLCRSLGAHYVRKSSYSGLPASFFSLDFGDLKNTPELHCFCDDPDDPESCPPKGTMSLQACNGAPILASLPHFYNADPKLQEGVNGLNPNEHDHAIYIDFELMSGTPLRAAKRLQFSLDLEPVEAIEQVSKVPRVVLPMFWVEEGAALNKTYVNMLKYTLFLGLRFNVGLRWTLITLSLLGLMGGGYLYMKKTDSLDITIPNKDNKVSNVKPVSATTAPVEMKPAPHSLANADLTNQKVEKF

>BcucOR1

MDSSIDTVNTFKRLFFFWRILGFTTNHNKYLIRLYDIFVTIFATFAFPLHLALGVIFADDKEVVFTNLAIGISTFACTAKHLMLRPQLSKVIAVNRILQKLDERVQSDEDTHYYIKQMREKCIFMMHFFTVVYFSVAVMAVLSALWSGKVLYPAYVVVDWHGSTWKYLAVMLFQIYGLNMQIVQNLTNDAYGPMILCLLSGHVHLLSRRILRIGHEHETEVERNYAELVHCIDDYKVLMRVVERVISSSYMVQFTAVGINVVVGLIYLLFFADNLFAYCYYVFHILAIMIEIFPCCYYGSMVQAEFHALSYAIFRSNWLSQSRTFRRAAVTFTELSLKDVTVTAGGMMKIHLDSFFKTCKMGYSIFTGKHTKHLRLVYDILMNTVVTFGFTAHLVLGIILSTNQDQFFTNLVIGIASVSCVFKHLLYRFRMPEMQRINEILGQLDDRVRTKEDYDYYKRLMERPCNFMVNFFTRCYFAVSITALIMALLTGELLYPAFIPLQWRTSVFKYAVGLLFQFVAVSLQIVQNIANDAYGPVLLCMLSGHVHLLSNRVSRIGHDKPESVKDNYKELSLCIEDHKLLMSTTKAVEHMVSASYLVQFGGVGINLCIGLVYLLFFADNYFAYVYYTIHITAIMIELFPCCYYGSMLECEFHDLSYAIFSCNWPMQPRPFRRNIVNFTELTLREVALYAGGMVRINLDSFFATCKTGYSFFTVIQSMK

>BcucOR2

MLKTWCNSSINLLKSVATVQQQVRTTFVLKRKYDPLLHKTNAKPKKLRAKHFIYELVEDTNVKRRPNLEVVLKTYVEGVGDKGDVVSVRPNFAYNKLLLPGLAVYKTDENVALYAKTEDEKKTVSHSSAFAQRTVNVIERFTLAVVMNKDQPWVVEPWHIKASLRKAGIHCPEDCITMPEARIEGPDMNKEGKEFYCTITVNNLEKARLRCRIHHWSTDPSERLPYVPEYWKMTSEPLFGSENSKEALAEKVEEKYVLFGGIVGGEPRAPYAMCGGQVMRRLPPTFIPTTPTSQPLMTSPRPRPNLKPAPVFRLSNTLLQRMFELVTGRGTGNATSKDAFVYFFKGCTIMGISPPKNAGPLYYMWSLIVNLVCIITSPITGIVGFANKYLQDIITTAQFLSGLQAGLNLIGLPVKCATVTFALKRLRGMESTLAIMDARYTRPEDVALIRKAAVMGNRLVLIFGTSYFIYMLFTVLPPLINGNPPLSVWIPFVYENQSTMHFCVQIFYDLFIMFFVLCHQTLYDSYGPVYIYVISTHFQLLVRRVGNLGTDATKSKDDNMKELVDCVVTHQQILELLATIEPVISTTMFTQFLIISSILCVTMVNMFFFADRSTQFASTLYFLCVLLQTSPCCYFATELKADSEKLPLAIFHCNWVEQDQRFRKVIIYFMHHAQISVELMAMKLFPINVGTNISLAKFSFTLFTFLKEMGIGQETTN

>BcucOR3

MYKYLRIQHFSFQVIGINLWAQRDQRIMSAPCRYCCWTLATAIITLLMGCYIYTSEQDKAIQVLTVFLQGVLSVIKSGMFVARGKRFIKLIRSLDTLADEENVKKGREWKQENDWQQWIVHIYYICCTCTGILYTTVSTIILLYSLCFKEHTELILPFEAAFPFDTGDLFFFTASYIWCLSMIIYAIHAIVAMDSLFSFVRIGLSIELGGSKGIFSHPERYATVMIGVIVWAVALFTYTMEYLADVDKIVAAMTINVQLCLTTSKNFIFLARRERFLRLNEALERLALTGNNIERELWNTSNRRVLPITMAYSISCQMTVSICVLLPILKLLYYYIWHNEVVLTLPLPGIFPYDYTVPFYFILTTILSVLLVYFCVYTICAVDGLFGWFVYNISAHLQIMRLKLEQLLQLHVDDPNFQRDLVALVNYHRQIIDLSLELDALYAPIIFLEVTSSSLPICFLAYQLSYLSDPASVPFMCLLMSSIVIQLMIYCFGGEKVQNECDQLCENIYLLIPWHKLPPKHCRLLLNPFIRSQRVLVLTGYFFTANRSLLVWIFRTAGSFTALLFALKEKEV

>BcucOR4/Orco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSIHLVLVVVQFLLILVNLALNAEEVNELSGNTITVLFFTHSITKFVYLAVSQKNFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVATAVAWTTITFFGESVKFAVDKETNSTITVEIPRLPIKSFYPWNAGAGMFYMISFAFQCYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKVTGVNVYAFTTIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

> BcucOR5

MSPPSKRNIGLTGSCTNPNGCISNEKRSDLFLYVRWLLFFSAIRPIPFDKHLPRRMHGHSVLVNVIWEIFLYLVVLHILVLFIITIYLNYDNGDLEFLISCGIQVLIYLWAILIKVTFRRIYPELVNGIVDFVNEEYVQHSALGFTYVTMKECVDRVNGGIRIFVPCCFSAVIYRFILPIIYNDRSLPLPCWYPVNYKAPFIFQILYFFQILAQLQMSAAFTVSSVYFISLCFLLSGQFDVLNCSLKNIVATTYIYMGASKHELIELRDNERIPGEEINEFFVAKELPFDLDCLPHILNPADTARTRSFREAFNYALGSCVKQHNFILNALLKLERLYNLLWLFKTLDVTLSICMGTFDVVKSSDEKSFLQLLSLGQYLFLGLWEIFMICYAGEIIYVNSQRCDEALLRSPWHLHLREVRADFLLFLMNAQRAFKLTGGKFYPLALEKFRGIVSTSFSFYTLLQNLDERN

>BcucOR6

MLFNPKPLKDPISFRFPLQCIWLKLNGSWPLRPQRSGEFERYFRWLYSVWAWYVVAMVGITIGFQSAFLVKTFGDIMVTTENGCTTFMGVLNFVRLLHLRLHQREFQQLLARFVKDIWITSSSQPIVERACARNMRVFQVISALQSCLITMYCLLPLVELYMLTVNTAPDVLESVEKPFPYKMLFPYDANYGWRYALTYLFTAWAGVCVVTTLFAEDSLFGFFTTYTCGQFRILHIQIDNIIPDSYAATRAGRGTEADFQRESVRRLDRIAGKHCVLFNFVRSMEEFFSPILLVNFLISTILICMVGFQLVTGKNMFIGDYVKFLVYILSSLSQLFVLCWNGDNIIQNSLEMANHLYACNWECGVEVAATNADNKRADEQVKMAAPTVYYTTNNAFRKKLQFMIMRSQRQTCITALKFSVLSLSSFSGLISSSMSYFALLQSFNEDEEN

>BcucOR7

MISLSTQATINNTISTHNSYLSNDSNTHLKHTASKLRTILAPYRVLKEMLRSGEAVHPPHTCLFYFRAYIRLLGLWPAERAVENPLYYAFNVLIMLLFGFFTVTIICDLYEASSDFVLFGEDLVVVLGLCLIFFKMILFRLGNADTDIIINEFDALHVKHFNESHDSPRNRRTRQWQRSFFFGEMCFFSGFYILSLFLFAAMSLQPLLSQQILPFRCKFPFGLDDPDEHPMGFVCVYFFQCFCTLYMLVAIVVMDSLGGNSFNQTTLNLRILCENMRNLGNGSTSELVVWRKLKETVEFHQQIIKLMNRINQTFYWNYVSQMGASTFMICLTAFEALLAQDKPMVALKFQTYMFSAFMQLLYWCWMGNRTYYDSMEVATAAYEVRTWYRHSPLLQRQLIFIIKRAQKPLEFRAKPLFGFTFASFTSILSTSYSYFTLLRTMSD

>BcucOR8

MLCKMSKLQPQLTAVMAKDVKTAQRNTNVQRKPLSVLEAKNLVKTLSEETVEEDVVQPVSTQDTTKYLFKAAFLMGIVMPSRYRALYVLHSFWVNFLTTFYFPIGFTLIFFTLSDEINISNLLTSLQVIFDVYGGSAKFIVMMCMLEKLRATQAITQQLDRRCRAADEIAELQKMVRFGQKVVIFYLTIFLCYSGSTFMASFFSGYPPYSLYFPFLKWRRSHSEFIIASFLEFVIMDLACLQQTVNDGYPVIYINMMLCHMKILQLRVQKLGNNTALTLEEHLSELKLCIKDHQLLIELYDIISPIVSVTLFIQFTLSAVCIGTTLINIVIFANEFQTQVACCFFILAVLIEIFPACYFSQCLIDESDNLSDVIFHSKWVEQSKEYRKLMIFFLQRSQRPMFLTAGKLFPVTLSSFVSIAKFSFSLYTFIEKMNLKERLGIE

>BcucOR9

MSRFLDGFFPKVEIENMTNSSYLPIMRYLPASYHKPLLPNGRHPPIDWQIYGFICSNCWPLAAHITKARYIVDIMVTIAQFMSESMVLIGEGIVMHDNLDNISFVCTVLAPNLILIEMMLRAYNIIYRRSSFRKHIEEFYKKIYVQRTWNPDLFEQIRRQQLPTKYSTCTYIITLVTYVYVPISGLIKNERLVPFPIRFSFDYTVPWPRYLVFLAMSIWTGFAVVGPLVAEPNLLAMQILHLNGRYSLLLQDLRKISKESIVEHERLKGKDTLLVTQRFRYRLFEIIRRNVELNEFAKSLQEQYSFRVFVMMAMSATLLCVLGFLTATLGLTAQNIRFVSWIIGKVVELLIFGRLGTTLSTTTDELSTSYYCCDWEDVILHSTDAEENKKLMKLIALAVHLNSNPFRLTGLNFSVVNYETVVSILRGAGSYFTVIYAYR

>BcucOR10

MSFRAYDMKTFLVYPEFALNLACFESFFWSENQYLHKSTTWYRLKRLIYIIITIILLVHICAVTASAFVPRVTPEAEAYSPSDSKLFEVLAIVSYFCCSFYKMWNIFWRRDDICRVMEELKALFPSIAKQKRLAELNESKEGKIGSGGIYRLEYYEEKSRTIMQFITRYFMFAYVAYNSIPVMQLCFAVITQQEHITYRAQANAWYPWHNHNDHSSFMGFMLSYLTQAIVEYTSIAFVMSGEFIFCFFTTQMLMHYNYLCSALSALDASAPDAVRQLKALISYHTHLLRLSKLINSIFNLTFALDLIITTFAISLMGLAIVLVNFADALMFSAGFSFFLLLGYLFCNNGDEILRETMQINSAIFYSNWYEGSPEYRRLIIFFIMRTKTPCQYQAYGYTPLSMETYMRILKLSYQMFTSVRAIE

>BcucOR11

MSKIIRFEAFLRIPNFFYRSVGVDLWNTDGGPLQDAVFYFGLLNVNVWLLSELVFAVLMVSKNFIQATMTLSYAGFVLVGSIKMYFMWRKKAEMKRFLQLMNAIFPRTEQQQKIMHLRRHLRQSTIVMSCFAMMFMVLIWTYNLYPYMQRQIYDRLLDVRSINKTLPYESYIPWNWHEHWTFYLYYTLQSIAGYHAASAQIASDLVLCAMATQMIMHYEYVAQKITEYQPQVGADSGSKAELSNGKELNSQSFTTLENEAYCRDMKFLCDIIAYHANVLSLSDIMNEVLGVPLLVNFMTSSFVLCFVGFQMTMDAEPDYMVKLFLFLFSSLVQICLICQYGQLLIDSSSNIAHAVYNHDWVHSHVHYQRMLVLVAVRAQKPAMLQATSFVRISRGTITDIMQISYKFFTLIRTMYSN

>BcucOR12

MDYFVPLQFDNRPIKLPIQITGYKFNCLWPLKEDASVLWRLFNNVCLSVSVLCYIGTILGEFTFIAENISDIPAVAECLCTSFMGVQYIIRIFVLLSRQRPLRQLLRNFYRDIYFTDADDAALCKEINSIIRFINIFTQFYYVPMVLILGLYVYEVASVGMASPDKPFIYRMSFRWYDAQAPLQFIITAIYSGWLTISCVTIWTAEDYTLCMVLCHASFRYKKLRLDLEQLLETARADLRSGETRCTNLNLHIAFRRRLCDIFQRQQRLNGFVAEAKAHFTHQIFYVMSFGVLLLCVVSFQFQSSPISVEWSKYISWIISQTSQFLLIGYFGQMLMDETTELRNSFYCCRWEDLLALGDLRSNKLLLGDVQFAIMNSQEPIVFDGMKFFPLTYSTVSSALRSAVSYFMFLNTMSEN

>BcucOR13

MILEKQEEIFEHNYNRIKVLFRAAYSIGVNLMAPSKIKDALKIVHVGLIMLAFLSVYTQYCYLMRNINSIPLIAESIYTALQVLSGTSKLIYFFFTHRTFYRLLDQTLTHDIIYQMEIFQHDFPINQMLKREIDVIMNRVWRTTRFLVLLFFYACFTVFANYLVAAILINLYHQLKETPDYQFILPLPALYTFWESKGMTFPYYHMQMFITTAAMHVSAMTGASFDGTFVVLCQHAAGLMEVHNLLVQHATSPDIPPERRVEYLRYVIKTYQRVNNFMLEIQTIYRHISLAQFLLSLISFGFMLFEANYGIRPNVNNLIRMIMYIMATGTQITIYCYHGQALTNVNEEIPVVYYNCNWYDENKTFKHLIRMMIMRTNKDFYLEVSWFTLMNFATLISLFRASGSYYLILKNFQED

>BcucOR14

MVFEDVEEIYRRNYNSIKVLFQVSFGLGVNLTAPSKIKDALKLFNVILVVASLLSMYAHWCYLIRHFENIPLLAETVCTALQTLISAFKMIYFLFRQHNFYRLLDQALKHVIIREIEIFKHDFPINQQLKREIDEIMNGVWQNARRQILFYFCCCVGIVCNYFFGAFLVNLYHQLKKTPDYKYVLPFPELYPFWEDKGMTFPYYPIQMFISSSAVYIAGMCAVSFDGVFIVLCQHAVGLVRVHNLLVLRSTSPLIPVERRVEYLRYTIFTYQRIYTYVQQIQTSFKHISLSQFVLSLIVFGFVLFEMSFGLESSIIIFIRMIMYISAGGTQIIIYCYNGQALTSVSEEIPMAFYNCNWYEECEKFKQLLRMMIMRTHRYFYLEVSWFTLMNLATLIALFRMSGSYFLLLRNLQES

>BcucOR15

MYSSTEIKELRTRNYWQKRELQRVACTIGLNLNTKTKLKGWWRIITVFFIATSCVALYPHLLMIKHAQGDIPLIAETSTTALQTTTALIKMAYMMLTQHKFRKLLQKVETHELLQDIEIFKTDMPIKASLKKEIIAIMDNNWKEMRGQLLFNVGTCVGVLCNYFFYALFKNLYHHLQGTPNYVHILPFTGYPMFLDKGMDSPYYVLDMFVGACSLIAAGMGAVSFQGSFLALCKHSCGLVQVLCLLLLRSTSPLVPKQQRVKYLHYCIVQHQRTLEYINEVNQLFKHILLSQFVHGLVIYGFVLFEMNYGLESDKVTFIRMIMYLAAALTGDCMHYVNGQFLVNELENIPLACYSCDWCHETDEFKMILKMIIMRSNKTFCLEISWFAVMSLATLMGVFKASGSYFVLLRDMNES

>BcucOR16

MATKKCSSNSSTSISRISAARFIIFTLKAIGLWQWTADSSQLANSRLSYLFKLQRVHGLILHIPISFTYITLMFTAVLLS

QELEEISSVLHVLLTEFALVVKILHIWHLRNATWRYMDELANEPMYAFRRQCEWTKWQHAQRSFAIIAYTYILGSLAVVVFGCIGVMLTPADVYILPFNFYIPFEWRHPRKYWYAWTYSSLCMLLTCISNVSLDMIFCYFMFHLSLLYKLIGWRLTALRRPKSTRGRVRDGGGEDESEVIDQMAEIFQMHMKLKRLTKKCEALVSVPVLAQIVLSAFILCFSGYRLQQMDNMENVGILISTIQFASVMILQIFLPCHYGDAVNEYSNALTNDIFNSDWTTFDVPSRKFMILYMELLKRPANLKAANFFKIGLPVFAKTMNNAYSIFALLLNMNK

>BcucOR17

MALRQEKYGTAKLDDLCDILHPVQRYLRLNYLDFRRVNGRFAIPNSKLLNICLILAVFDCIGNCIKCIKAMNAGEITKAQEIFAVFGMGFVMTMRGLMLALNRVQLSNFYNKIDCIFPRSAHLQQHMAVEKVHSYIKRRFYIMHTLMTVTVAAFLTTPGVKFMVFHDFDSDDSVADEYHVNPSWLPFGLKDKVSTYPYVYIYESVLAAAAVNMIITWDEVFVVLISQLCMYYEYLGRLLEEMNVQDALDPTKLDAFYEQLHEYIYMHQYLNKLAVEFNDLFNFSILFSDAGIATSICFNIVLITDATDYLQMVTYTSPLFVEVWLIYDAAKWGTMLETVTGRINEILYEQKWYESSVRFGKYTMMWMQSTNEPFRLTAFNMFYVNMKHFQDMMMLAYQMLTFLKSKS

>BcucOR18

MLPPFKSREHAPTVQDFVYVPLFQIRFMGVKLFKWTPEERTSKLQITLMGTFCVFATFNFVSMMLFVIYDELPTSLDITEFILFWGFALNAMMKGGTMVFFRHEIESVLKGLIARHPKTEAERVAFQLVPYYKTINASNKYLSIWHLSITSIFALHPMVASILGYIWREDKNDAYVYTLPFMMGYYYDTNHPFPYAISYFIQCCGAFYMSLLFLSGDLLLISMVQLVNMHLEYLIYRIESFQPTGMDADMKVLGPLLEYHNEILDYAERIDGTFSLATLLNYGGSCLVLCLIGLQIVLGSEALSVIKFIGFLVSTIVQVFFVSYFGNNLKELSTGISDAFYNHPWYDGNYKYIRMLVLPIARAQRYAHLTAFKFFEISMDSFKSLCTTSYQFFTLLRTSIEEEGFQ

>BcucOR19

MKPAFKNSEFSPTVPDFVDIPLYLLTFIGAKLFKWTPNDPKSKSGIILLVIFSGLTVYNFTSMMRFILFENLETLLDITECILFWGFALNGLMKGGTLLCFRHEIESILKGLIVRHPKTKEERLEFQLVPYYKTINASNKYLSIWHLSITSIFILHPVLTAIYGYVNREDENEDFDYVLPFMMNYFYDVNHPLPYAISYFMQCCSAYHMSLLFLSGDLLLISMVQLVNMHLYLISRIESFQPTGTDDDIKVLGPLVEYHIEILDYTERIDNTFSLATLLNYGGTCLVLCLIGLQIVQGSDTVSVIKFIGFLVSTIVQVYFVSHFGNNLKDLSTGISDAYYNHPWYTGNYKYMRMLVLPIARSQRYAHLTAFKFFVISMDSFKSLCTLSYQFFTLLRTKIENNGA

>BcucOR20

MTTDECSSSMSRISGARYLIVTLKAIGLWQWTGDSSHLGNTGIPFLLKLQRAHGLILHVPISFTFITLMFTAVLLSHDLEEISSVFHILLTEFSLVVKILHIWRQGSAAWHYMDELAHEPMYALRRQCEWTKWQRAQRSFAIIAYSYILGSLAVVVFGCIGVMLTPADVYVLPFNYYVPFEWRHPRKYWYAWAYSSLGILLTCISNITLDMIYCYFMFHLSLLYKLIGWRLTALRRPKSMGYVDMGEPDVTKQMIEIFQMHMKVKRLTTQCETLVSVPVLAQIILSAFILCFSGYRLQHMKNMENVGILISTIQFASVMILQIFLPCYYGNAVTEYSNALTNDIFNSDWTTFDVPARKFMILYMELLKRPATLKAANFFNIGLPVFAKTMNNAYSIFALLLNMNK

>BcucOR21

MKPAFKNSEFSPTVPDFVDIPLYLLTFIGAKLFKWTPNDPKSKSGIILLVIFSGLTVYNFTSMMRFILFENLETLLDITECILFWGFALNGLMKGGTLLCFRHEIESILKGLIVRHPKTKEERLEFQLVPYYKTINASNKYLSIWHLSITSIFILHPVLTAIYGYVNREDENEDFDYVLPFMMNYFYDVNHPLPYAISYFMQCCSAYHMSLLFLSGDLLLISMVQLVNMHLGYLISRIESFQPTGTDDDIKVLGPLVEYHIEILDYTERIDNTFSLATLLNYGGTCLVLCLIGLQIVQGSDTVSVIKFIGFLVSTIVQVYFVSHFGNNLKDLSTGISDAYYNHPWYTGNYKYMRMLVLPIARSQRYAHLTAFKFFVISMDSFKSLCTLSYQFFTLLRTKIENNGA

>BcucOR22

MSSEARTFSEFIRIPIRFYQTIGEDLYEHRSPYRTRRLLLKSLLYIGFINFNLLVVGEIIYFIKALNSFATVLEATGVAP

CIGFSFVADFKQMALTAHRQTLREHLDQMEELFPKTTAQQVEYKLPQRERVMRRVMAVFTLLCLAYTSTFSLYPALKASVQYWLLSAPVYERNFGFAIWYPYNATQKTWVYWLTYMGQVHGAYLAGVAFLSADLILVASVTQLCMHFDYISCCLEDFAGATPKRSAQEDLQYLQALVVKHAKCLELSEHVNSIFSFSLLLNFLTASLTICFIGFQVTASSTEDIVKYIIFLTASLVQVFVVCYYGDELMTASLRVGDAAYNQNWFDCDRRYKRLLTIMIMRSQKPACIRAPTFPPISFRTYMKVISMSYQFFALLRTTYSGKGN

>BcucOR23

MDKLAVLSSRIFPSDPSKGKIGSIEYNVWLAQLFGVPVVGLKAESPLMRIALGIYGVLLTLLVTFIYTGFEIYDMILCWPNLDDLSQNICLSLTHIAGVLKVINILYRLDEVAHVVRRIEYSAKTYVISKRQLVAFYRGEFENKIPLTIYASLVGFTGVLGIIYLFYNPVGVAGQIFPYRVKLPDWMPFGLQLAYMGISVLVFALQIVSIDYLNVTMINQIRFQLKILNLAFEELKLDCGSKKKAHFNHDKRLQTIVEHHCLLRDLRIDVEEIFRMPVLLQFFTSLIIFAMTGFQAIVKTENSNGAALIYCYCGCIFCELFVYCWFGHEVSEQSKTLTTSGYSSHWFEFDQRFKKSLLIFMCNSQTPFVFTAGGFMSLSLPSFTGILSKSYTVIALLRQVYSR

>BcucOR24

RFITNVMLYRPRLNNGKLIPLSWPIVAYRLLNNICWPLRDHASLLERLFDRFFWSLGFFIFVQHNDAELRYILVNNNNLDEMLICGPTYLILVEIHLRAFQLGLNKEAFKRFLQKFYAEIYIDEPAHPKLYASIQKRLRPIWFYSLLYFSTLSSYVIMPFVNYLNNVKAPLYKMYYPFDITPNPIYVAVVLSNIWVGFTVITMVSGEDNILSEVMLHLNGRFLLLQQKLGQDAERLLHAGDDRNIADDLRQRIVEAIEENVRLYKFAEDFEREFSFRLFVSLSFSAGLICVLGFKVYTNPMASFGFMFWICAKVMEMLLIGQLGSSLIYTTNEISSTFYKSHWELVIQKSSDTNANVRLMKTLLLAITTSQKPFVLTGFNYFSVSLTAVLKILQGAGSYFTFLTSMRK

>BcucOR25

MNFRFLSRTFPLRDYYFYVPKLCLGALGFWPLDTCEPGAFNVWAWVNLIILTIGVVTEMHAGCLALRTDLELALDTLCPAGTSAVTLLKMALIYYYRQDLAWVLKRMRDLVYERDVSINSVKKHIVRAHAVMAARLNFIPFVMGFITCTSYNLKPLLMTLILYVQGREPMWKLPFNMTMPPFLLRAPYFPLTYIFTAYTGYITIFMYGGCDAFYYEFCSNTAALLELLQNDLKSILSFGGDKFTLTAEESTVLEWRLVQFIKRHNDIIELTRFFCKRYTVITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIGYTIAVLGQLFIYCYGGSMVAESSVQLATVAFGCDWHACNPRLRRYVLMIIIRSQRAISMSVPFFSPSLVTFTSILQTSGSIIALASSFK

>BcucOR26

MRKLIDLLYGRGAAKFESSESFQLLFKSWTFFGFTTMQPYRLGHLLHMCLCWYCLALCPVAFYMGYIQTLRTAPVSIQLNLLQATVNVVGLQLKCIVILILKTHLRSATPIFAHLDERCHSAESREEIKNCVVYCTRLFAIVGFMYHFYATLLYLQALVLHTYPLNTWLPFTDYIHHPTIKYFLHFIIEVFHISFQLSLQATNDVFPPIYIRNLRTHLNLLTKRVSRLGKNTEFTDEQNYDELVDCIVTHQELLEAKNIVASVCSITVFIQFIVVAIANCISLLNFFVFADRLEQLSTFSYYISVLIQIMPTCYQASMLEEDSAKLPNAIFHCNWLGMDKRCRKLIIYFMQCAQEDITFVAFKLFKINMTTNLSIAKFAFTLYTFMNNMGFGQNMKDLLE

>BcucOR27

MRNIADLYYGRGKDDFGTSESFVLLFRSWRLLGFITAKPYRITNLMLVVFIWACLIFSPITYFGGLVLAMKELPITVVLSILGVAINCLALPTKAVYIRANLYRLYDVETIFKRLDARYQRPQDQLLIRDLVKSCTRIFGIFFIVYWIYGIASALAGLFAHKYPHDSYVPFIDWMPDSNLKFWLHFSFEVVYAQIMLQTNVTNDSFPAIYIHAIRTHIKLLTERVSRLGTNPDLSEQENFDELVDCIVTHQEVLKISKIVGSILSLTTFFQFTVYAAIVCICMLNMFVFGDATTKLVTVSYIIPVLWQTIPTCYQASMLVTDCTKLPLAIFHSNWLALDKRCHKLIIYFMQRTQDEISFTAIKMFQINLGTNLSIAKFSFTLYTFINEMGFGETLKERLE

>BcucOR28

MRTITDLLYGRGAAKFESNESFQPIFQSWSMIGITTLKSNRTRDVLHMCFCWFCILLSPFSFYMGYVQTLRTKPITDQLSLLQAIFNVTGLPLKAIFIKISQTHLRTTEAIFVRLDERCQSAESREQIKKCVVLSARIFTVVGSVYHLYGSTTILQAFFTDNYPLQTWLPFTDYIPQPTIKYYSHFMFEVFHIYFLLTVQFTNDVFPAIYIRNLRTHMNLLTERVSRLGSNPEFTDDQNFNELVDCIATHQDLLVVKDIVESVCSVTVFIEFVAVATAHCICMLNFFVFADRFQQMVILSYYLGVIMQIMPVCYQASMIMEDSAKLPDAIFHCNWLAMDKRSRKLIIYFIHRAQENMTFVALKLFKIDMTTNLSIVKFAFTLYTFMNNMGFGQNMKELLE

>BcucOR29

MQRLSELLYERVESDCETNKPFKLLFYFWTWIGIKSKPRGFLSTLHMVCVWIMFFFTPFLATVGFIRKWKVSTVTECLSTLQAFINAIAASAKAFAVLMYFKRIKNVEPIMKDLDERYKKPHERQQISDCVASCTRLYASIWFIYYLYGNMSILTAIVLHKQPFGGWYPFLDVIPNPTVHFYSCFIFETCYMYLLLTAQYLNDLFPTLYMRTIRTHIQLLRERVSQVGADPDMSDEEKHQQLIDCIDIHQQILKVVNIVGSICSPTIFIQFSVVAIVHCICMVNIFIFADNLNLMITIIYYITVGMEILPTCYEASTLEMESSKLPVSIFHSNWLALDMRGRKLIIFFIRRAQVDVSFVAMQMFKINLQTYLVIAKFSFTLYTFVNEMGFGQNIKDLME

>BcucOR30

MPEDLFRIQRNCLRLMGHQDIYDDDNETAGDEQKSKSWQQRCFRHSQTLKYALLLLLMMSAQLPMMDYIIYHIDDLALATACLSIVFTNVLTVIKTSTFLAYKREFKSLMAEFERMYDELHEAGAKRCLVTVNVGAKRFVKLYFYSVSCTGLYFTIKPLVSMIWAKFQTKPLVLELPMPMRFPFDFESPPGYQFAYIYTILITIVVVMHATSVDGLFVSFTTNLRGHFQALQYFIETNTYDKSDALIQRELRIYVHYHVRLLELSQSVQRIFKPIIFGQFLMTSLQVCVIIYQLVTNMGVIMEMVVYCTFLSSILLQLLIYCYGAEFLKIESSAVGTAVQMSQWYNLPPRHRHVLRLMMLRSQREIIISAGFYEASLANFMSILKAAMSYITFIQSIE

>BcucOR31

MLLKFLSQNYPTEKNVFLIPKFALRIVGFYPGDSKSRLMHAWLIFNMFVLVYGSYAEFMFGVHYLSIDVVRALDALCPVASSIMAIVKLSFLWWHRAELNCIIKRVAELTAEQKSPLKSYYKHRYFTTATRLSAAVLCFGTTTSTLYTIRAAMVNYSSYLREEKIPYETPFKMIFPQPLLSMPIFPLTFILSHWHGYITVAGFAGTDGLFLCFCKYIGTLLKALQFDMKDLLSDVDSVTRKSTSEYEFRESLKLIIARHNEIIDLVKRFSAVMSGVTLAHFVTSSVIIGTCVVDVLLFSDLSGIFVYSVHTMAVTSELFLYCLGGTVVIECSSQLATAAYDSQWYTHSVEVQRMVLLIIIRAQRSLVVKVPFFAPSLPALASILRFTGSLIALVKSVV

>BcucOR32

MVLHILVLFIITIYLKYDNGDLEFLISCGIQVLLYLWAILIKVTFRRIYPDLVNGIVDFVNEEYVVHSALGFTYVTMKECVDRVNRGIRIFVVCCFAAVIFRIILPIIFNERTLPLPCWYPLDYEAPIIFQIAYFFQTVAQLQLSAAFSISSVYFIAVCF

LLSGQFDVLHCSLKNIVATTYIYMGASRNELIELRDNERIPGEEINEFFVAKELPFDLDCLPHILNPADTARTRNFREAFNYALESCINQHLFILNALRKLERLYNMVWFFKMFEVTLAVCMCTFDMVKSSGGKPLLQIFALSQYVCLALWEIFMICYAGEIIYVNSQRCDEALMRSPWYLHHREVRIDILLFLMNAQRAFKLTAGFYPLRLERFRGIITTSFSFLTLLQNMDERT

>BcucOR33

MFKSDLGIKSYFHLQKFTFRRLGIDMTTREARVTQICFLIIQIFALASILIPIAVYSWQHIDDIAEVSNAMAPFMQATISLWKVWRVIYRRKEMAELCENIYLISAKASKLELAHLIQENNRERIMNTAYYYSVLNTGVMALTAPVVVSFIQYLRLGEFSYITALKATYPIDYARPLNYFLIWLWTAVAIYGVIYVSVPVDSLYSWYIHNLVGNFKILQSKLVSAESIAESTADLGKRRELIYYCVAYHQRLITMSEQLNIIYQPIVFVQFSLNGLQICFLAYQIGSGVVAMVDLPFLLLFLISVGIQLMIYCYGGQHLQNESVNVSKSIYQTINSSPWPNELRKVLLISLMRAQKPCKLTGIFFDVDLPLFLAVWRTAGSYVTLLRSVDQKTM

>BcucOR34

MDFVHFFWFPNALYRVVGYDFQQLARAHWRQVIMKAFLIFTTISGICTRIYMLFQLRELILNGDILNSIRLGVYISYAIDSNVKFFVFLLNAQRLRVIYQTLYNEYPVTPIERKLYQVDKYSFKRAHLMMVVYLSVTNSILLGPMLQSIFMYFVNLFHYGYAVAEFPYLHPTPVLYNFNYCTPHYYILIYISEYLNGHFCTTTNLGADLYVCTFAGQFCMQLEYLGNSLETYEPRVENSKTDCEFLMEWIRKHQLMLDLCCELNEVFGTTLLFKLISNCTVFCAIVVQLKLEGFGIGFFNFLSFFFVTVAQFFMVCQYGQKLITISEDLSLCAYKNRWYNGSQTYKILLFNIIARAQKPVKLTARGFQPISLATFQIVMTMTYRVFAVLQRALD

>BcucOR35

MFDLIKGRGRTVFASRDAVIYLFNSFRYIGFNPPATYRVPYFMYSAIITFFAVVFSPVIFNVGWLRDRNKLSVMEILTCVQASLNVMAVPLKCITLAMAHKRLRGIEPMVTELDERYTTAEDKAKIKQCAVTGNRLVFGFAISYFLYETLTVVSALVGGHAPLSLWIPNVDWHRSTWEYWLQVSFDSAVLFFLLYHQVLNDSYPAVYIYIIRTQVQLLASRVEKLGYDEQKSVDENYQELLECIVIHQKILKIVSIVESVVSITVFTQFLVAALILGVTMINIFIFADLTTKIASSTYFFCVLLQTSPTCYHASYLLADCDELRIAIFHCNWIAQNKRFNNLLIYFLHRSQDSIPFFALKLVPINLATNLSIAKFSFTLFTFIQEMGLGENLKG

>BcucOR36

MPNLIRVGGACIYKSRDSLTYLFKIFTFVGINPSEQQSRKYYWLYYSYSLTVNFICCLFSPLSFHIGYIKLWHVLNNNQLLAAIQNAVQVTGIPIKILVITWYMKRLRQAFKILDQLDVNYTQHEDLAKIRECVRRCRKIVLIFCLPYYSFELSTIALGLLQKRAPLAAWVPFLDGQRAAWEYWTIVLWDTFVMFILLSYQLGGDTYPLIFLNIIRTHVQLLVTRVSRLGRDGALSADEHYAELLACIRTHVQIVSIANIVAPVISVTLFTQFATTATTLLTWFGNVEYPENIISFAFFSCQLLQIFPCCSSASQLIADCERLPDAIFHCNWVDQDRRFRRAILFFLQRTQKPMRFWCLKLFVVKLETSVAIGKFAFSLYTFIQESDVGRKSNN

>BcucOR37

MSLIINSWDAFKYHWRVWDLSGFRGPRRQSIWYIPHKLYMIVITLLFPIYYPTCFTVESLLADNLNDFCEVIYIAMADVTLNIKFLTLFIVRQQLLELRPILKRLDARAKTEEEIGVLQDGIDSAKKCFLIILRLFYSAFVTSQLMVIFSGEARLMYPAWYPFNYKATRTKFWIAYGYQTIGFLVQCTQACSVDTYPQAYMRVLTAHIRALSLRIEAIGRKSFNCDSSEFIPLTKDEMKRNYDELVSCIKDHKTIIELFSTIQKPISGTAMAQFVCTGVAQCTIGVYMLYVGFNISIMLNMAVFFVSVTMETLILCYYGDMFCQECEQLSKAIYNCNWTVQSSEFKKALCFFLLRSQRVNVLMAGNWIPVRLPTFVMVVKSSYSIFTLLSSFK

>BcucOR38

MFDLVKGRGRNVFASRDAVIYLFNTFRFVGLNPPPQCRFLYYFYSGIITLFVVLLSPIIFNVGWIRDRNVLSVMEILNCVQAALNVVGVPIKSITLAMSLERLRSVEPLLSKLDARYTEPEDVAKIRSCAIIGNRIVFGYIISYMMYETLTVVSALLGGHAPLTLWIPYVDWHRSMWEYWLQVTFDGAMLFFLLFHQILNDSYPAVYIYIIRTHVQLLSNRVKRLGTANKSQDETYHELQDCIVTHQEILRLVRVVEPIISLTLFVQFFIAAAILGTTMINIFIFADFATRIASLTYLFCVLLQTSPTCYYATHLQSDCQDLTMSIFHSNWLAQGKRFNTLLLYFLHRSQADIPLFALKLIPINLSTSVSIAKFSFTLYTFIQKMGVGKNLK

>BcucOR39

MTQTSAAERRERIGIARVLMCALQFLGLWPMWNERPQSAASTQCSIWLRRYYRYLLHVPLTFTYNTLMWIEALTRWERADHILYISITEVGMMALALNFWRMERCAWHFMHELNHSDCLALRNDVERDWWCGQQRLFARIVVCYIGGGAGVLFTAFGATLFMSGYSLPYDYWLPFEWHNAQNYWYAYGYEVIAMSLTCISNVTMDMLLCYYLFHVALLYKLIGMRLMALQHLSEPLAVQQLMNIIELHKRVKRLTTQCESLVSVPILVQIVLSAFILCLSAYRLQSMQISENPGQFLAMLQFASVLTLQIFLPCYFANEITINSDALTTCVYNSSWEQFSPSTRKQINLYMELLKRPAHIKAGDFFLVGLPVFTKTMNNAYSLLALLLNMSK

>BcucOR40

MSATEAPISGVTVFHFHDVTWRYVGQKPPTEKLHRYLYYIYSLLLNVIITIGYPTHLMIGLIQSESKSNMFKNMSISFTCLACSIKTFAFWWRLAEVQKIYAIISKLDKHIAHSDDYRLYKTIVLRRAQRVLYFILFIALGAAFSSEVATIIGGLLVEWRLMYPAYFPFDVERSFWGYAVAHIYQCIGVTVQIFQNLINDTFPPLALAMLAGQVRLLNLRVARVGHVASDASVRRQPSNSEFLLCVEDYKDLLEFRIAIQRICSIGTFVQILVTAINMGVVIVYLIFYVDGIFAYIYYIVFLIAMPLEIFPLCYYGTSVQMEFEQLTYAIFSCNWVFENATFKQDLRIFTEQSLRKQIVIAGGMFAVNLDTFFATLKGAYSLFAVVVQMK

>BcucOR41

MKLEQFDNISGGRRVIKILKLLGLWHYGGVFRMPYLLYSGLLHSSFTIPYTIMMCLDVVQASNLEKFTNTMYMTLTELGLVAKLVNVWIYSRLLVDFFAAFTNDKLYKLQDAEEQLSWRRTQGNYARIAFLYFAMSLGALASAFVGVLYSEDYELPFPYAPPFDWRTPRGYWYAYFYELLAMPVTCLSNCAFDMIQCYMLLQLSLCFKLISGRLERMGALREDSASRGFSEFRLHREFVDIVRLHARTKKLSQQCQTYISFPFLIQIICSSFVLCFSAYRLQKVPIQENPTQFLTLVQANLIMVLQIFIPCYCGNEIIQHSSGLNNATYNAEWFRCSPKMRKYLVIYMEMLQRPVRVRAGDFFDISLAIFTKTMNNTYSLMALLLNMNK

>BcucOR42

MTAERVRPTDSFAKLIKMVRLISSLVGADVSTVNYRVNIITVILILCIVIYFIFTATTVASVFSEDWTFLLEASCMMGSGLQGCTKLISGIFRTKDVSSMRLELEEIYRTYESKGQSYCKVLNESCDRVRKVIKMVGYIYASNIAGIILLTTVLMLTSDRKIYIMQFFIPGVDADTSFGYLLTTAVHMVVFLAGSFGLFGGDLFFLIYLGQPELFRDILILKVEELNEAVAQKDDNIESLLINIIEWHQYYMDFNNRCNDIFYYIITMQILTSGISIICTMYIILMGDWPGAYLYILVALCGLYLYCIIGTRIQTSSETFFEELYNINWYELDIKKQKMMILILMKSQNPSEIKIAGVLPLSVETALQITKSMYGIFTMMLQVMAEEL

>BcucOR43

MAVKAIRPTETFTKILNFFHLICSLVGADLSNDNYRVNIITVIVILSIIIYFIFTATTVASVFSEDWTYMLEASCMVGSVLQGCTKLISAFIFKNKICGMRAELERLYAEYEVKGDEYVKTLNKSCERMWQITKVVGQMYLYAAVGIVVTIIYFVIATTQRVYVMHFFIPGIDVNTQTGYLITLGVHAVVFMSGAFGLFAGDLFILLFLTQPMLFVDLLVLKVKALNEAAAQKTNAVQRLLIDIIEWHQYYTDYNKRCNHLFYYIISVQIITSGISIICTLYIILMGDWPGAYMYILIAFSGLYLYCILGTKIQDCNSAFCNELCNINFYDLEVKSQEMIVLIIMKAQNPVEIKVGGFLPLSVQTALKITKTIYGIFTMMIRFLEEEQ

>BcucOR44

MDGAKGFVNSFYKTQYIIFKLLGLFSFPADYSSFWHYMHKLYFWHVAIFWMLLFDISMWIQIIGNISNLNEIINVFYLFSMAIAVMAKFVRIRLKNNSYAAMFARMHDNDLLPVNAAELEKFTQSSHLSCRVRDSYMYLSLTSLTLIFVTKLIAEPGELPLSIYIPISVETFWRYLIAYLFQFISLSLCCWLNISFDSLGASLFIYLKGQLDILANRLENIGMNLDMDDNMINRQLKDCIQHYVKLRNITEIMEDLLSIPMSVQMMSSVLVLVANFYAMTFLTDPSDYVTFIKFLVYQLCMLSQIFMLCYFANEVSLRSAELSYSLYSSEWTRCSQINRRLMLLMMAQFDVPMRIKTINRCYSFNLPAFTSIINSSYSYYALLKKMKD

>BcucOR45

MKRQTSPSDIYYKMLSVIRFCSRRIGCDIIAEDYKINLNTMVVIVAIGAYYLCSVHTIMKYIATDWTVLLDVFSPVSCTTQGMVKLISVLLYPELYRKLALDIGLIYEKYQELGAAYKEKLLEWNTNMKKLLIAIAIVYFLTALLILCTPIVLYIFKGERHLILLCQVPGFEVDTFHGYWVTNAFNALCVFIAAFGLYAGDLYLILFLTHSIFFRDILTLKIDDLHKLIEADDKEDRQTKLVKDIVEWHQYYLEFNDKCNLLFFWTISAHIICTTLGILSTLLIAMLKDWPGAYAYLLVCFIWLYMYCILGTRVEINNDRFCTGIYDINWYALDVRNQNTIRLMLMQSQAPKNITIAGVEPLSVSTALKITRTIYSLVMMVLRFQNKQ

>BcucOR46

IGSVDNLQAIVNNFTIFQLTILHPGENTSKMSHKPLLTATTLDTKEAFSYIWYCWGFFGMYPDLYERRLNWIYLILLNLYCGVIYPLLYIGSLLTPMDLNQKLANISVAVPILYTLGKHVIIVYYLRKDLPKALRQLQALDRLAERRPKDREYMKRMVKNCHWIFLASSVSFWFALLSYGVLEMFRHKLPFEGWVPFDWQRTEFAYVCACALQLFGLGIETTNAICCDTYAVTYLVLLVAHLRILNRRIARAGNTGDGSDAENYRELVACVEYHKECISYYNSIRPTLSGTCFIQFLSTGLGLSMPAIAFVGGSFSFSHVIKFLIIFGAIIIEVAPCCWFMDEVMAEMHKLTNSMFSCRWYDQNLKYRKALIIFMQRSQIAHPVLAGNIIPVSLETFTNIIKFAFSLFTLLNQLSHN

>BcucOR47

MSPSPLSLPPPPPPLAAVDTRSFFKLHWTCFRVLGINAPSSNTYYSVLLQVLVTLCYPFHLALALFSSPDASINIQNLTVCVTCVACSMKFVFYATRLSRIRELESIIAALDARARSLCERRYFVQLRKELRRITICFLCIYTVVGVTAELMFIFHNERNLLYPAWFPFDWRASNLKFYAAHSYQIVGISYQLLQNFVNDCFPTMALALLSAHIKLLGIRVSQIGHETASLGANEAELLHCIKDQEQLYNVLNIIQNIISLPMFLQFTVTAINLCLGMAALLYFVDAPFDRLYYLAYLLALPLQIFPICYYGTTFQLLFDKLHVEMFASNWVEQTHKFRKHMILFCERSLMSQTAMAGGIVRIHLDTFISTCKAAYSLLAVIMKMNE

>BcucOR48

METKTRPSDNFHKLLKIIRISSSLIGVDVIDENYKFNYVIGFVMVAIAWNFMCSIYSIYKDVTTDWTVLLDVFSPISCAAQGTIKLCSLMLYPKLYRELAMDLVEIYKKYQAVGQKYETKLFEWNKSMKNILIIGALVYFLSSLLALIAPIFLYIFKGERHLIIMCQMPYVDVATDHGYFITIGYNLLCVFVAAFGLYGADLYVFLFLTHSIFFYDIFALKVGDLHEILRQDNKDKRIKPLINDIAQWHQYYLDFNDKCNQIFFWSITAHILCTTLGILSTLLIIMLKYWPGAYPYIFVCFVWLYMYCILGTRVETCNDQFCDGIYDINWYDLDISDQKTVSLMLLQSQVPRLITIAGIEPLSVNTALKITRSIYSLVMMVMQFNE

>BcucOR49

MAYEAKPPGVKQLFRTHWTVWKWLGQVIHPQYPKLHIAYTVLLNVGFSIGYPLHLLLGLLNLKSLQEVLLNLTISVPVAVCTLKYFNIWRNLDKVRHLEQTYNTLYARIDHPEEWLYYRKIIIPYALKVLHLFYFICVGTAITSELTLLIVGFAYEWRLMYPAYFPFDPYASTGGYVAAHLFQIIGLLVQLAENLVSDTYGGMCLSLLAGHAHLLGQRVARIGYDEQKTQEENNRELVDCIVDHNMLFDCHRTLTDIIGLGLFMQIISASLIMGVVIIYLIFFVGNSFEYVYYGLFLFACIMEVFPTCYYATYFEIEFEKLTYMMFSCNWMDQNRQFKQNLIVCVEQSLNTRYFHVGGMFRINLQIFFATCKGAYSVLAVALRLK

>BcucOR50

MNAIERNTNFTRFTAGPVRYFKFIGICLQPPEMRSYKYTRILIVLTILLMFLHQIGYILTPGRTFAEQSTAAGLLNYTTVSGGKILFLIYNRHLLLNSHCQLAALYPSASLERRYKLEHYLRIYAHVQTLLYNFFKYILIIYLLYPLVQSCYDLWSNGVYSYLMPTLFWYPVPLEQSLLVYIVYFLFACFCSFCAGLIILSADLCLFSSVSQLMLHLDLLAQRISELQPAEPESLSALKAIIEYHQKILILAHDVNSTFAPTILFSLASSSFILCFSAYQLLDDVSFIFALKVLLLLGYEMKQVVITCYYGDKLMDSSANLFNAVYAHNWADGSPAYKRLVLFMLVRTYRPIALKVAGISDVSLITLKQVLSTSYQIFTVLKTA

>BcucOR51

MSSSNPSLQSVNSVVLYREFWLCWHAVGISTAYQKHLCALYDLLINVLVTIFYPIHLIVGLFLNPTPADLFQNLSITTCFVCSVKHYLLRRKLPQIRVVQALLADLDKRVEDAEERAYFEKQLVVGAKNVVKLFSIAYGGANMAAISATLLSKERRLMYPAWLPFQWQASTFSYCAAVIYQIAGVTIQIVQNLANDIYPPMSLCIIAGHVHLLALRVAKVGRDGKKSLKQHNQSLIECIEDHKKLVRIFELTQETLSQAQLAQFISSGLNMCIVLFYLIFYVDNVFSYIYYAVYFVSMAIELLPSCFYGSMLIYEFQQLPSAIFKCGWLGQSREFYQNQRIFVQLTLKEIVPLAGGVIGIQLDSFLGTCKVAYSLYTVCNRMK

>BcucOR52

MRRLLGPQVPIERSFFRIPRFSARIAAFWPQTFNRSLYWLTALRFCVNTFAVAVGGIGETLYGFVYLHDLFSALEAFCPGITKVISLLKMTIFFVRRKRWLHVIDGMRQLLLLDTSAEKRRIMEPLASFGSVLSFVLLISGSVTNTFFNILPLLKMGYYKSQSLDVPLLLPFNVILPEMFVNWPYYPATYLVLTLSGAMTVFSFSAVDGFFLCACVYTSALFRILQHDIRGAFAELQEQEHSTLVQNMRIQHRLAVLIERHNKIIDLCSDFASEFSLIILMHFLSASLVLCFSILDLMLNSTSIGVLTYIFYSIAALTQLVLYCIGGTYVSESSLKVAEVIYDIDWYKCDVRTRRMLLIMICRSQKAKTIQVPFFTPSLPAFRS

>BcucOR53

MNNSPPVDSRQFFRTHWRLWLLLGCVREPVHYQLLYRLYSTVVNALIMLFYPGTILIALYNSANLTDFLQTLPICAAALACSAKYISYYRRLGLVRQAEQIFNALDEQVLLPEDREFYAGIHRGTNLILNTLRGLCIFFMAITVMAFASSIEERGLAFAIELPFDWRKSSVAYVGAVGLELLLLSCDLLQSLANDSFPAIALCVLSNHTRLLGARLARIGHTSKDVQANIREMQRCIIDHQRLYRLQAIIEEIISMPVFIQYAVTAFQDCFTLITFIFYTNTVSDKVLYLTYLLALQLQIFPTCYYGTACAQSMDDLQQEIYASNWVEQNQVYRRLVTIFSQRTLKSTTTYAAGLIPIHLSAFVKTLQGAYSFYTFVDGVRKV

>BcucOR54

MAIDTMVNFRTIVRILTLSGLWRGMKGSRFERYSRYYQLFMHFIVTFGFILLLSLEIIYSDGLDHAIDVLKYLLVVMALGIKVLNAWYYTRQITEVMYEWENSELFVLRNDDEKQMWAKTQKTFRKLGMTSFGLGFNSAMCALLGVLLMGATEQPYALWMPTNWRDKYYWQMYIYQCLSMPFICFSNVTNDVFQAYLLLHLTLCFRVISMRLERLANAGADGAITAELMNDIKMHQRVKEMAISCEHIISLSMLTQITLTFLIICFIIYNLANANFREDPVHCLAMLQYALIVSLQMFLPCYYGNELTLESEKLSINLYSSDWTGMSAYNRRFIFHYMESLKKPLVLHAGSFFEIGIPIFAKAMNNAYSLLALLLNVNDDEQ

>BcucOR55

MSTAVEDNPLLSINVRLWKSLSVLFARDWRRCVAFVAPICLLNAMQCVYLYQQWGDLATFILNTFFAVSVFNALLRTCLIIKNRDKFEALMEELVTLYDNIEESGDDYAKSVLAAATKSARNISIFNLSASFSDLIVAMAYPLFQEQRIHPFGVALPGIDVTRSPLYEIIYIGQLSFPFTLSSMYMPYVSLFASFAMFAKATLQILQNNLKNLCDNMKTKTEEELFELLRTNIAYHARIARYVSDFNELVTYIVLIEFLLFSCVICSLLFCINITTSTAEKISIVMYIGTMLYVLFTYYWQANGILEMSLLVSDAAYEMQWYNCSPRFKRTLLIFIGRTQKPLQIRVGQMYPMTMEVFQSLLNTSYSYFTLLHNLYND

>BcucOR56

MNQPINSNVFFKIHWLGFRICGGDSTVNKYRLVYLAYALMVTVLVTVCYPLHLALALFRNGSLGGNIKNLAVCVTCIACSSKFLIYTRKLRIMHEIEQTFAELDARVSSEVERKYFARLRISVRNVVSVFVCAYAAVGMTAELAFLLSKERSLLYPAWFPFDWRASTRNFYVANVYQFVGISYQIFQNFIDDTFPPITCCLLSGHIKLLGIRVSRIGYDCVNRQDNERELVRCIKDQKNLYKLFVLLQEVMSWPMFIQLTVTAFNICVAMFVMLFFVDTPFERLYYLVYFVSMPLQIFPICYYGSSLQHLFSQLQYDVFRCNWTDQTPRFKKQMMLFTERALKTTTALAGGMIKIHLDTFFATVKGAYSLFAVIMKVK

>BcucOR57

MSFCEELFNWSLVFMNRAGYFDRHRRASVLLIPPISLCVAAFYRTYILRNDFDEVIVNLFKISGATVTTMRAFVVMYKSQAFLDFFVFVEKWYEEQQRDGEEVTLRKTHEFTQKIRKAAKTLLIVTMIILSYMVLIQLLATVGIGYRKLIVDVAFPGIDFYISPNWEMMSFLQCLYVAPFTFVSYVSYLCLTLIAISFGIFLMKDLQFKLENMNDMTDLEALNCIKKCVKAHVMIIKYHNHLEALFSVGSFADVCIFGIIPCVIIVLSTMDHDISMLIADIQMAAMVMTSTFIFFWVANNFVIESENIANAAYNCNWVDRDKEFRKYIPLIIGNSQKPLQLTAGGIKPINMEFFLTIVRCTYSLFTVLFTMKTGGDS

>BcucOR58

MPSYQNLPSYSVNVKTFVKLGLIESSNPTRRFLLGLILIVTYIGQLTNLFWTWNVDIGETGITNFHVLALMTHCFLRFMVIVRKDKKFERFFEGIEQWYTDIERNGDPQIVSTLQEITDKTQKLTRLSFYASTVAALAVFIYSFSFEGRRLLLTVQYPFFDVLQTPYFEFFFLIQVVWLLPTFLLIYLPFTNIFLTSLMFGELTLKDLCSKIRKIQSENEMTMLNEFKECIAYHNKIINFRNDLEYLISIDGFFHVALFSLMLCMLLFFLSLVQDYRQILSALAFISFNFYVIGITYYYANNFSNESLKIANAAYDTPWYEGNSELRKCVQIMIARSQRPLELKSGGLYPMTLENFQAILRMSYSYFSMLQGFSQQ

>BcucOR59

MTLSGLTVFRFNNANLRYLGLVTPTNRRYRYVYYLYSLLLNTLISICYPAHLMIGLFQMEQKTDIFKNICVIFTVLACIIKTFALWWRLADIEAIYAIIVKLDARITQPEDVHFYTSDTLRRAKHVQYFLILLGVCAFAASEAATIFAGIMGEWRLMYPAYFPFDISASAWHYTAAHLYQAAGIILIFQNLSNDSFPAMALTLLAGHTRLLGKRIARIDDAAVSVAQLQRCIEDYRNLLDLRLTIQSFIAVSAFVQLLSTGVNMCVVIFYVIFYVNDILWYIYYMVYLVAMPFEIFPLCYYGTCMQLEFEQLTYAIFSCNWLDQSAVFKRNLRIFTEQTLRNQIVVTGGMFPVNLETFFATLKGAYSLFAVVKQMK

>BcucOR60

MASYQNLPLYSVNIKAFVKLGLIESNNSTRRFLLGIIIIVTYIGQLTNMFRTWDVDIGETGMNFHVLALVTHYLLRFIIIVRKEKKFERLFQGIEPWYTDIERHGDPHIVSILQKITQKTQRLTRLSFYASVVATLATFIYSLSFDERRLLVTVQYPFFDVLQTPFFEFFFLIQMVWLVPTSLLVYLSFTNIFLTSLMFGELILKDLCLKLRNIRSENEMTMLKEFKDCIAYHNKIIDLCGDIEDLISMDAFFHVTSFGMMLCMLLFFLSMIDDLELIPAVLVMMGFDMYLIGFSYYYANNLATESLEVANAAYDTPWYRGNLEMRKCVLIMIARSQNPLQITAGGLYPMTMENFQAILRISYSYFSLLQGVSQQ

>BcucOR61

MRFCEELFNWSFTFMKRVGYFDQHRRAWLLLISPISLCITAFYCTYVNRNDFDEVIVNLFKISFATVTTIRAFVVMHKAQAFLDFFVSVDKWFQELQCDSDEMTLKRTHEFVRKVNKASKALLIITTIILSYIILVQLLVTVGIGYRKLIVDVAFPGINLYESPYWEIVSILECLVIAPFTFFSYVSYLLLTLIAISFGIFLMKDLQCKFESMNDMTEQEALKCIKQCVKDHVLILKYHHDLEVLFSVGSFADVSFFGLIPCVIIVFVTMDHDMSLLIVDIQLSVMVMISTFIIFWVANIFCYESENIANAAYNCNWVDRNKEFRKYIPLIIGNSQKPLQLTAGGLKPINMEFFLTMLRCSYSLFTVLFTMKTE

>BcucOR62

MFDDLQLIHMSVRILRFWSLIYEHTWRRYVCLSMTTFLVFTQLYYMFRTSEGIVSIIRNSYMLVLWFNTILRAYLLLYDREKYEKLLSDLEKFNFDLKQSKDFYIQDLLAEVNKTGKYMAQGNLFLGLLTCFGFGFYPFFVNERVLPFGSMIPGVDEYKSPFYEFWYFYQMIITPMGCCMYIPYTSLIVGCIMFGIVMCKALQFRLKTLHRVRHDEPLIRKHVRECIRYQLCIIDYIARVNSLTTYIFLLEFLAFGTLLCALLFLLIIVDSSAQAIIVCAYIAMIFAQILSLYWYANELREQNLAIAAAAYDTEWFTFPIPVQKYILLMILRAQKPPAIMVGNTQPITLELFQSLLNASYTYFTLLKRVYT

>BcucOR63

MPKHRKWLYALYSLIPNVLVTIWLPLSFVFSYATMSTEELVPSSLLTSIQVAINVIGCSVKIVVMAFLLPKLRTANVFMDRLDARCRVEAEIAELRKLVKQGNRFVVLFAMSYWSYASSTFLGSVIFGRPPYALYNPLIDWRKSKLEFIAASIMEFALMDVACFQQVVDDSYAVIYVCVLRTHMNILLVRLSRLATDDETNLDANLEELKLCIIDHKNLLGLYDVVAPIISLTIFIQFMITASILSATLINIFIFAEQLSAQIACCFYILAVVVEIFPLCYYAQCLMDDSERLSQQIFHSNWVAQDVRFRKMLVFFMQRTQRVMELNAGKIFPITLGSFLNIAKFSFSLYTLIKKMGIRERLGLE

>BcucOR64

MHPTRRHRLPYYIYSGCINISLGVFLPATMIAKLFFIENLSQLIGLLYLGVTLTMATAKQWSLWLHRSKLLAVNQYLDKLDARCMPHAVDRQHIRTAIRICHLYYAGYMFVYELCSSGFAYIGFTLRQLVYDGWFPQFYADEATNLTVTLIYQNFAVMSFFVLQNVNNDMYPQCYLAMMIGHLRALTARISRIGKDGVLSEDENIAELTNCIEDHKNLLGYFACIRPVISRTIFMQFGITAFVLCLTAVNYVAFERDAAQMLIAATYIFAVLIEALPCCWYVNSLMEECGELTTALYNCQWYDQNRKFRKMLIIFMQRSQRTMLLMAGDLVPITLQTFLNVSCLGVQILEGVDFY

>BcucOR65

MNNKQDAVGRLDSSDALRYVWLFWRITGIHPTAKYRGIYWLYSLLLNISSSVLFIAFYVVTFFISTDLLETLTNLSVMVPLIYTSTKHLVVFYHIRGKLPQAAFHLQALDRRVELEPAACEHLRRLVQRCHRIFLAALAGIGVCLALYALVGIARHKLPFEGWLPFDWEHSLNAYILACAYQLFCLSVQSIYALCSDTYSIIYLLLLVAHLRILNARIARIGGACAAQCGEVANYQQLADCVRDHWECMKCISPTIAATIFVQFLSTAFALCTAAVAFVNADSSVEQLMKFLPYLLVVLCEIAPCCWLMDEAALEMLKLTNALFSCCCSDGN

>BcucOR66

MVRQLDTRAIFTRLFLTWRVLGVIDWPFHRHLRLVYDILTNTVVTVCFPLHLLVGIVFSTNQEEFFTNTVQGIASVSCVLKHVLYRFRMREMQRINEILGQLDDRVRTNEDYDYYKHHMERPCNFMVNFFTRCYFAVSIMALVTALFTGKLLYPAFIPLQWRTSVFKYAMTLLYQFTSVSLQAVQNIANDAYGPVVLCMLSGQVHLLSNSVSRVGHDKHDSVEDNYKELSLCIEDHKLLMSTTMAAESMASARYIVQFGGTCKTGYSFFTVIQSMK

>BcucOR67

MQRLSELLYERVESDCETNKPFKLLFYFWTWIGIKSKPRGFLSTLHMVCVWIMFFFTPFLATVGFIRKWKVSTVTECLSTLQAFINAIAASAKAFAVLMYFKRIKNVEPIMKDLDERYKKPHERQQISDCVAACTRLYASIWFIYYLYGNMSILTAIVLHKQPFGGWYPFLDVIPNPTVHFYSCFIFETCYMYLLLTAQYLNDLFPTLYMRTIRTHIQLLRERVSQVGADPDMSDEEKHQQLIDCIDIHQQILKVVNIVGSICSPTIFIQFSVVAIVHCICMVNIFIFADNLNLMITIIYYITVAMEILPTCYEASTLEMESSKLPVSIFHSNWLALDMRGRKLIIFFIRRAQVDVSFVAMQMFKINLQTYLVIAKFSFTLYTFVNEMGFGQNIKDLME

>BcucOR68

MAGKIFPFRITLPAWLPFYMQVAYIGVTDFMFAVQIVTVDYLNISMINLLRCHLNIIKSTFDELILDEQNARRDMKRDPNARMADIVEHHCILKSVRDDVEYIFNLAVLLQFFTSLIVSAVTGFQATMHSSNSNSMMIMYFYCFCIFTELFGYCWFGQEVNEQNNTLAARGYGSSWYHFDQRFRKSLAIFLLNAQQPFNFTGGGFIDLSLPSFTNVMSKAYSFIAVLHRMYGR

>BcucOR69

MLHQLDTRAIFTPIFIHWRVLGIIHWPFQRHLRLVYDILLNTVVTVCFPLHLIVGIIFSTNQDQFFTNLVMGIASVSCLFKHMLYRFRMEEMQRINEIFGQLDDRVRTKEDYDYYKRLMERPCNFMVNFFTRCYCAVSITALTTALVTGELLYPAFVPLQWRTSVFKYAVSLLFQFAGISLQAVQNIANDAYGPVVLCMLSGHVHLLSNRVSRV

>BcucOR70

FLPQRYVSDFNELVTYIVLIEFLLFSCVICSLLFCINITTSTAEKISIVMYIGTMLYVLFTYYWQANGILEMSLLVSDAA

YEMQWYNCSPRFKRTLLIFIGRTQKPLQIRVGQMYPMTMEVFQSLLNTSYSYFTLLHNLYND

>CcapOR83b/Orco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSMHLVLVLVQFLLILVNLALNAEEVNELSGNTITVLFFTHCITKFIYLAVTQKQFYRTLNIWNQVNSHPLFAESDARYHSIALAKMRKLFTLVMLTTVVSAVAWTTITFFGESVKFAFDKDTNSSITVEIPRLPIKSFYPWNAGSGMFYIISFAFQCYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDVSGIYSSKADWGAQFRAPSTLQTFNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKITGVNVYAFTTVGYLCYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>CcapOR7a

MDKLRAVIFDRVGLSTKDSFDLLYLNWWLNGNTSWKPHRLGHILHMTICWCLKFFAPVTYFKGFLIALSTSTITTALYNLQATLDVMVAPFKAVVIAKHMHRLRTLTEVFNRLDDRYHNPRERAQIDEGVIICRQIICFYCAVYSGYAVMTWLGALIAGKMPHYLWFPYFDSIPNETLRYWLQFTFEALFIHFMLNVSYTNDVFPVIYMRALRTHVKLLAERVSRVGSNPELSAEEHHRELVDCIVAHREILYIVDVVGAITSLTIFLQFAMAAATLCACMLNVLIFAERIGQIITIIYYMGVLLQTGGSCYQASMLEAESSSLATAIFHCNWLNLDKRSRTLLVYFMQRAQEDIAFTALKLFQINLKTNLSLAKFSFTLYTFMNEMGLGNDLAKSQS

>CcapOR85c

MCENIESFEAFLRIPSFFYRSVGVDLWNTNGGSIQRFIFYFGFLNVNLWLLSELIFAIITVSENFIQATMTLSYAGFVLVGSIKMYFMWRKKTEMTQFLKLMDEIFPRTAEQQKMMNLRRHLRQSTIVMSGFALIFMILIWTYNLYPFMQRQIYDCWLDTRSINKTLPYESYIPWNWHNHWSFYLYYVLQSIAGYHSAAGQIASDLVLCAMATQMIMHYEYVSHKIRSRYRGERKCVDSKSVSCLNALNHWTEEQVATHKDMRWLCETIAYHSNLLSLSDVMNDVLGVPLLVNFMTSSFVICFVGFQMTMDAEPDYMVKLFLFLFSSLAQIYLICHYGQLLIDASINVAAAVYDQDWFDLNVRYQHMLVLVVARAQKPAMLKATNFVRISRGTLTDIMQISYKFFTLIRTMYSD

>CcapOR7a-like

MHRVMEYIFGRRRLVVKSGTNDSFELLFLIWKIIGVEHSRSYGFFQLFHVFCCWALLLYSPAAYNMGFLRALKTLPMASALNILQTDINVSILLFKVVIIKFHLKRLRSLRDIFKRLDERYHNPEERAQIDESVAICRRIIYIYIFVYFTFAFLSWITAIMAGELIYSLWLPFVELIPHQGWQYWARFSVEAFYLYFLILVCLICDVYPAVYIRAIRTHVHLLAGRISRLGSNPDLSAEENHQELVDCILSHQELMRVVEVVSAVTSLTLFLQFTVAAMILCVCMLNALIFADRAGQIMTVGYYMGVLLQTGGACFQASMLEAECVKLPLAIFHCQWLNLDRHSRSLLTFFMQRAQVNVCFTAIKLFQINLRTNLSLAKFSFTLYTFMNEMGFGGDTNEKIS

>CcapOR85b-like

MAPYFHTREPAATIPDFVGIPFFLISLNGMQLFKWTPNEEASRRKLLLITAFSVIVTYDCVSMLSVFAFVKLERLDYTTFALYWGYALNSLMKGGTLWFGRRQLEFILKSMVEKHPKTIAERQEYHLVAYFTKIKSFNKYLTIFHLCTTSLFNIQPMVSSIVEYMGRQDKEEEFKYKLPFIMYYYYNERQPVLYLFSYFLQCMGGFYMSYLFLGGDLLLMTLVHLVNMHFEYLIRRIESLQPTEDSEKDLNLLGPLVTYHLEILDYVKKIDATFSLSILLNYIASCLCLCLLGLQIVMGSDLVTVVKFFAFLVSTMVHVYYISHFGNNLIDLSTGISDAFYNHPWTNAKYKYSRMLVLPIARAQRYAHLTAFQFFEISMHSFKSLCTTSYQFFTLIRTSLEEDFH

>CcapOR7a-like1

MFDLLKGRGYRELNSRDALIYLFNMLSFVGLNPTAHCRLLYYFYGSIITLFVVVLSPLIFNIGWIRDRNVLSIMEILNCVQAALNVIGVPIKSIALMLCLDRIHSVEPLLLKLDAHYSKWDDMLRIRQCAIMGNRLVFSYIVPYMMYETLTVVSAVLGGHAPLTLWLPYVDWHRSSREYWLQVCFDAITLFYLLCHQIINDSYPAVYIYIVRTHVQLLERRVSRLGYVPQKSEHENCQELQECIVTHQEILRLVHTIQPIISITMFVQFIIAAAIMSITMINIFIFADLATRLASFVYLICVVLQTAPSCHQASYLQGDCEKLSSSIFHCNWIAQDKQFKKLLIYFLQRSQADMPLIALKMLPINLATNVSIAKFSFSLYTFIQKMGLGAHLND

>CcapOR2a-like

MDKLEALSSRIFPSDPSIGKIGSIEYNVWLAQLFGVPVLGLKKETPRMRIALAVYGVVATLVVTFLYTGFEIYDMIFCWPNLDKLTQNICLSLTHVAGALKVINIIYRLKEVAGVVRKIEYAARYYVISKNQLKAFYRGEFENKIPLTIYASLVGFTGILGIAYLLHNPTGVAGEIFPYRVKLPHWMPFGLQLAYMGFSVLVFALQIVAIDYLNVTMINQIRFQLKILNLAFEELKFVSGQAAHELSLDRRLRTIVDHHNLLRNLRNEVEEIFRLPVLVQFFTSLIIFAMTGFQAIVKSENSNGASLIYCYCGCIFCELFVYCWFGNEVSEQSKTLTTSGYNCHWYQFGPRYKKSLLIFMFNSQKPIVFTAGGFMALSLPSFTGILSKSYTVIALLRQFYGR

>CcapOR67c-like

MPFAFQQLCFELQLSLKYSVPAMPLKLANNEPAATIQDFVGIPLFLLTFMGVKLFKWTPEEASSKRQLIMLGVFCVFATYNFATMILYIMYEPLNSSLDITEIILFWGFSLNGMMKLAIMILYRNELKSILRGLGARHPQTAEERSIYRLVPYYNKILIYNKYLAAWHLSITTLFSFHPLVASILGYIFRRDSSDGYDFTLPFMMWYYYDTTKPILYIFSYVVQTFGAFWMSLLFLSGDLLLISLVHLVNMHFDYLIRHIESFQPNGTDEDMKVLGPLLAYHQEILDYAERIDSTFSLGTLLNYAGSCLVLCLIGLQIVLGSEFLKVVKFIAFLVSTIVQVFFVSYFGNNLMDLSIGMSDAFYNHPWYDGNYRYSRMLVLPIARAQRYAHLTAFKFFEISMDSFKSLCTTSYQFYTLLRTSLEEEAG

>CcapOR94a-like

MDLQEYDNNSGGRRIIQVMKLLGLWYYEGSAKMPYLLYSCLLHFTISIPFTIFMAMDVVHATDLEKFTNIMYLTLTELGMVAKLFNVWFYAKLLVDFFETLSGDKYFELREKDERLKWQHAQRTYARIVLFYVFIGLGAMFTGFVGVLFSAKYELPFPYAPPFNWHTPHGYWCAYLYELLAMLITFFANYGFDMIQCYMLLQLSLCFKLICGRLECMGELRSGTAVSRGFSEQQLYRQFVDIVKLHARIKNLSRLCQTYISFPFLIQIMCSSFVLCFSAYRLQKLSILSDPMQFLTFVQVNLIMILEIFLPCYYGNEVIAQSSALNNATYNSEWFRCSPGLRKYLVIYMAMLQRPLRVRAADFFDISLEIFTNTMKNTYSLMALLLNMNN

>CcapOR33b-like

MLKNVFIFKPAGNAAVDSVACFDIFWMCWKLNGIAVNSNKWYITLYDIAVNIFITIFYPIHLTVGLFMVPTLADVFKNLAINITDVACSTKHYLFRYKLPKIRELQRLLKQLDERVLAPNEREYFDKKIRLGVRNIMLLFCASYAADALASAIDVLSKNERELMYPAWFPFDWSANRFTYYGAVFYQIFGVSLQIVQNLAHDTFAPVGLCVISGQVRLLAMRVSKVGYDESKSLAQNEQELNECIEDHKKLLRIFDLMQDVFWYTQLVQFSSVGLNICLTVVFLLLFVDNLFGYVYYTVYFISMAIELLPACYYGSNMQEEFQNLPYAIFKCNWIPQRRGFQQNLRIFTELSHKQLTPTAGGIINIHLTSFVATCKMAYSLYTMLMNI

>CcapOR33b-like1

MFQRQIETRAIFRRLFMTWRVLGIILWPFNKYLRIIYDILMNIFITFAFPVHLTLGVIFSSNQEQFFTNLIIGIASVSCTFKHLLWRSRLAEMQQINEILAQLDDRVRVREDYEYYKRSIERLCNFMINFFTRCYFSVGVTALFIALITGELLYPAFMPLQWRTSFWNYVAAILFQFVGVMLQIVQNIANDVYGPVVLCMISGHVHLLANRVSRVGHDTEENTQSNYEELSKCIEDHKLLMSTSKTVERIASLSYLVQFVAVGINLCIGLVYLLFFADNYFAYVYYTIHITAIMIELFPCCYFGSMLECEFHDLSYAIFSSNWPTQPRPFRRNVVSFTEMTLREVTMYAGGMIRINLDSFFATCKMGYSFFTVIQTMK

>CcapOR67d-like

MAAEKVSPSESFAKIVKIFRLICSLVGADVCDVNYRINIVTAIVIFCIIIYFIFTATTVASVFAENWEYMLEASCMVGSVLQGITKLTSGIAFAKEICAMRFELEDLYRLYETRGEEYTAVLHLSCKRVWQVIKMVGQIYLAAGVGILFMTAIFIVATDEKVYIMHFFIPGLDVHTQMGYLLTMAVHTVVFLAGAFGLFAGDLFFLLFLGQPMLFLDLLTLKVQALNVAADRCSNEAERLLIDIIEWHQYYTDYNRRCNHLFYYIITMQIVTSGISIICTLYILLLGDWPGAYLYIFVAFSGLYLYCIMGTKIQICNDAFCEELYNIDWYKLNVKSQKMLVFILKKSQKPAEIKVGGFLPLSVQTALSITKTIYGIFTMMLRFLDEEN

>CcapOR85c-like

MSIIIRFEEFLRLPSFFSRNIGIILWGQRGKLFDRFMFYFSSINLFLTLLAELWYIISTISTDFITAIMGLSYVSFVVLAEVKFYYLIKYDMKVSTVLKRLNALFPHTKEEQENIQLIKYLKMSKFYTLFYTVTFMLVIWTYNLYTVSQRFIYTKILQVREIERELPYPAIYFWNWQDNWSYFMLYISQSLAGWHATCAQILTDLLICILISHLIMHYDHIARSLLNYQSKFAELYGKESTMKCMPKLARVMMEERAVRADMKFLADIIAYHTELLSLTESLNDVFGVPLFMKFMSSSAIICFLGFQMTVNRGFDLLTKLALFFILSVLQVYLICHFGQLLIDASTNVSTALYSQDWTNADVRYQKMLVLIIKRAQRSATLKATNFIIISRATMTEIMQMSYKFFALIRTMYND

>CcapOR10a

MKFKFLSRTFPLRDYYFYVPQLCLGSMGFWPMDTCRQQAANVGAWMNLIILAIGVFTEIHAGCTVLRTDLELALDTLCPAGTSAVTLLKMTLIYYYRQDLAWVLERMRSLVYERDVSINPIKKRIIRAHAVMAARLNFIPFVMGFITCTSYNLKPLLITLILYMQGQQPMWKLPFNMTMPAFLLRAPYFPFTYIFTAYTGYITIFMYGGCDAFYFEFCSNAAALLKLLQEDLKSIVSFEEQLVFTAQESTLLEWRLVRFIMRHNDIIELTRFFCKRYTIITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIAYTIAVLGQLFIYCYGGSLVAESSVQLATVAFGCDWYACNPKLRRYVLMIIIRSQRAISMSVPFFSPSLITFTSILQTSGSIIALASSFK

>CcapOR43b-like

MRKIGDLCYGRGKNNVYIKESFRLLFFSWSLTGIAPTKTPRLFNTIFMIICWCGILMCPYCFIAGAVNSMKTSVITVTLVNLQAALNGIALPLKAITIAVNVKRLRSIDNIFKELDNSYTDPVHHELIKKSVMRCTRLFVVFLTVYWLYGITSCTAALFSHKYPHSMQIPFIDWLPDSDVKYWLHYILEASYFFFLLLVNLTNDVFPAIYIKAIRTHLYLLTERVSTIGKKSETTAEQNYDTLVECIISHQKLLRISDTVGDVISKSIFFQLAVYSTILCICMLNMLIFADTTYILVTLVYLIPVLSQTIPSCYQASMLEAESTKLSVAIFHTNWWNLDKRCHKLLIYFIQRSQQEMVFTAVKLFQISLKTNLTIAKFSFTLYTFINKMGIGETWKN

>CcapOR59b-like

MSNLLQRLLNQLLPSRTTQKSIDVVKQVSPSLSNAELIRIQFERATRTPKERSAPVGRPYQAVHDIHSRDGLIYLYRSFSALGVLMPDKHKILYCLYALLPLGLITFYLPISFALSYFYLDYSTVKIGNLLTSVQVFIASIVGGVKLIVMAFKLPKLRASEAIMHQLDARCKDEDEIEVLRKVVRQGNRVFVLVLICNLIYSTSTFLAAASKGRPPYNLYNPVVDWRKSKGAFLWAALWEFILMDGLCTEEAITDSYAPIFVCIMRAHMKTLLMRIQKLGSNPERTLDENYEDLKMCIKDHKLLLELFDVVHPIISTTYFLQFMTTSLMVGCTLLNIMIFAVDNLARVGHLAYVMALLMEVYPLCYYGQSLLDDSNRLANTIFHANWIKQNEKFRKMLVVFTQHTQKPMELLAGKT

>CcapOR42a-like

MNRFRKQSARAAETENNKLALALSKEKLSGLKNGEEQRIARKPAKPASAVREKQGEFGNVFFSLTFLVASPASSKEATNYFFKAAFGMGIMLPTRHRILYILYSFAVNSMATLYFPIGFTLIFFTLPEDDLDVSNLLTSLQVTFDVYAGSIKLIIMAFLLGKLRTSEIVFQQLDNRCRTPDEMNELRKMQQFGRKVIIFYMTIFLIYSSSTFLGSVTFGYPPYSLYFPFLKWRRSRIEFIIASLLEFLIMDLACLQQTVNDGCPVVYVNILRTHMKILRSRVEKLCTNAALTKEQNLLELKLCIKDHQLLLELYEIIASIVSITLFLQFTVSAICVGTTLINFVIFANGFSTRVACFCFILAVLIEIYPICYYSQCLITESEGLSDVIFHSNWIEQNKEYRQLLIFFIQNAQRPMSLTAGKLYPVTLSNFISIAKFSFSLYTFIEKMNLKERLGIE

>CcapOR49a

MDFEKIFWLPNTLYLVVGYDFRQVSKSYLKKILMTAFLILTNITGICIRIYMLIQLRELVLSGDMLNSFRLGVYISYAFDSIVKFFGFLHNAHRLRKIYESLATEFPQTFSEQQFYQVHKYSFNRSRILIFAYLSVTNSILLGPIVQSIIMYIIDAFLYGLSGAKFQCLHPTPITYNFNFCSPRYYIPIYIVEYLNGHFLTTTSLGTDLYVCTFAAQVCMHLKYLGNSLEGYEPSADNSKADCAYLKEWIKKHQLMLRLCADINDVFGTTLLFKLISNCTVFCIIVVQLKLEGFGWGFLNFLCFFFVTVAQFFMVCHFGQKLINTSEDVSLCAYKNRWYNGSKAYKTLLFTIIARSQKSCKLTAKGFQPISLQTFQIVMTMTYRAFAVLQRALD

>CcapOR24a

MSIKFLTQSYPTEKSLFLIPKFVLRIVGFYPEQEKSTIRRNAWTMFNLIMLIYGSYAEFMYGVHYLSIDAVRALDALCPVASSIMSVVKLSFLWWHRVELERLIRRVSVLTAEQDSRLKNNYKRRYFTIATRFSAALLCLGTCTSTLYTIRAALANYFSYVRGENVPYETPFKMIFPQTLLSKWIFPVTFTFSHWHGYITVAGFTGTDGLFLCFCMYFGTLLKALQIDLKDLLKDMDCGQHEGLSERDIEECMKKTVMRHNEIIDLIGDFSAVMSSITLTQFVLSSVIIGTSVVDMLLFSDYGILLYFVHALAVTTELFLYGIGGTTVIECSSQLATAVYDSNWYSHNVEVKKMVLFMILRTQRSLVIKVPFFAPSLPALTSILRFTGSLIALVKSVV

>CcapOR22c

MLQPLLGSQVPIEQSFFRIPRISARIAGFWPQPAVRPRTWLTVLRFCVNTFAVAVGGFGEVTYGFFYLYDLFSALEAFCPGVTKVISLLKMTIFFGRHERWQRVIHGLHTLLLLDTSAGKRRIMEPLASFASVLSFVLLASGSLTNTFFNVLPLLKMAYFKWRALDMQLLLPFNVILPEVLVNLPYYPATYLVLTLSGAMTVFTFSAVDGFFLCACVYATALFRILQHDIRNAFAELQEQESSSFEQNMRIQHRLSVLVERHNKIIDLCSDFAAEFSLIILMHFLSAALVLCFSILDLMLNSASIGVLIYIFYSIAALTQLVLYCIGGTYVSESSLSIAEVIYDVDWYKCDVRTRRMLLLMMCRAQRAKTIAVPFFTPSLPAFRSIVSTAGSYITLLKTFI

>BcorOR67d.4

MTIKHIRPTASFAKLVKTVRFISSLVGADVSTENYQVNIITIIVIICIIMYFIFTATTVASVFAENWTYLLEASCMVGSVLQGITKLISGISRTNEVSGMRLELEELYRVYESKGESYCKIMNACCDRVWQIIKMVGLIYGAAIVGNLLLTSFMVFFTNQKIYIMHFFIPGVDVETSFGYLVTTALHSVCFLAGAFGLFGGDLFFLIYLGQPELFRDILILKVHELNEAAAQKDNKTESLLISIIEWHQYYTDYNERCNELFYYIITMQILTSGVSIVFTMYIILMGDWPGAYLYILIALSGLYLYCIIGTNIQTCNETFFEELYNINWYELDVKGRKMMILVLMKSQNPSEIKIGGVLPLSVQTALQITKTIYGIFTMMLGFLDEEE

>BcorOR67d.2

MKTQKQPSDMYYKLLSVIRFCSRTIGVDITAEDYKINSNTYIVIGAIIAYYFCAINMIAKYILTDLTVLLDVFSPVSCTTQGAVKLMSALLYPKLYRKLATDIGQIYEKYQQMGREYQQKLLEWNKNMKKILFACAIVYSITAMLILSTPIVMYILKGERHLILLCEVPGFEADSYYGYWVNNAFNLLCVMIAAFGLYAGDLYLLLFLTH

SIFFYDILVLKINDLHKLLEDEDKEDRQTKIVNDIVEWHQYYLDFNDTCNLLFFWTISAHIICTTTGILSTLLIIMLKDWPGAYTYLFVCFLWLYMYCILGTRVEICNDQFCTGVYDINWYALDVRNQNTIRLMLMQSQAPRNITIAGVEPLSVSTALKITRTIYSLVMMVLRLQNK

>BcorOR67d.1

MQTKTRPSDNFCKLLKIIRLSSSLVGIDVIDENFKFNYVVAFVLVAIAWNFTISIYTIWKDVKTDWTVLLDVFSPISCATQGVVKIISILLYPKLYRELATDLVNIYNKYQALGTKYETKLFEWNQSMKNILIIGGLVYFVSAVLALVTPLFLYIFKGERHLIIMCQMPYVDLDTDHGYFITIGYNILCVFVAAFGLYGADLYVFLFLTHSIFFYDIFALKIEDLHEVLHENNQDTRIKAMVNDIAGWHQYYLDFNDKCNQIFFWTITSHILCTILGILTTLLIIMLKYWPGAYPYIFVCFVWLYMYSILGTRVEICNDQFCDGIYDINWYDLDVSDQKTVSLMLMESQVPRIITIAGIEPLSVNTALKITRSIYSLAMMVVQFNE

>BcorOR67c.1

MMPSFKGSEAAPTVPDFVDIPLFQIKFMGAKLFKWTPDEPRSKLQITLLGTFCVFATFNFTSMLLFVISDELETSLDITEFILFWGFALNAMMKGGTMVCFRRDIEFVLKGLIARHPKTEEEREAFQLVPYFRTINASNKYLSIWHLSITLIFALHPMVSSLLRYIWRGDTNESYDFTFPFMMAYYYDTNQPLPYAVSYFIQCCGAFYMSLLFLSGDLLLISMVQLVNMHFGYLIYKIESFQPTGTDADMRMLGPLLEYHNEILDYAERIDSTFSLATFLNYVGSCLVLCLIGLQIVLGSDALSVIKFVGFLVSTIVQVFFVSYFGNNLKDLSTGISDAFYNHPWYDANYKYTRMLVLPIARSQRYAHLTAFKFFEISMDSFKSLCTTSYQFYTLLRTRVEDEGV

>BcorOR49b

MFDDLQLIHMSVRILRFWSLIYEHTWRRYVCLSMTTFLVFTQLYYMFRTSEGIDSIIRNSYMLVLWFNTILRAYLLLYDREKYEKLLSDLETFYYDLKRSKDAYIQDLLVEVNTTGKYMARGNLFLGLLTCFGFGLYPLFATERVLPFGSMIPGVEEYKSPFYEFWYIYQMVITPMGCCMYIPYTSLIVAFIMFGIVMCKALQFRLKTLHRVRHIESLIHKNVRECIRYQLSIIDYITRVNALTTYIFLLEFLAFGTLLCALLFLLIIVDSSAQAIIVCAYIAMIFAQILSLYWYANELREQVIAIAAAAYDTEWFTFPIPVQKYILLMILRAQKPPAIMVGNTQPISLELFQSLLNASYTYFTLLKRVYT

>BcorOR49a

MDFVQFFWFPNALYRIVGYDFQQLPRAHWRQALMKAFLIFTTISGICTRIYMLFQLRELILSGDILNSFRLGVYISYAIDSNVKFFVFLLNAKRLRVIYQSLSNEYPMTSMEQKLYQVDKYSFKRARIMIVSYLSVTNSILIGPMLQSIFMYIIDLFRYGYAAAAFLYLHPTPMSYNFNYCTPHYYILIYISEYLNGHFCTTTNLGTDLYVCTFAGQFCMQLEYLGSSLEAYEPSLDNSKADCEFLMKWIRKHQLMLDLCSELNEVFGTTLLFKLISNCAVFCIIVVQLKLEGFGFGFLNFLSFFLVTVAQFFMVCQYGQKLITISENLALCAYKNRWYNGSQTYKTLLFNIIARAQKPARLTAKGFQPISLATFQIVMTMTYRVFAVLQRALD

>BcorOR47b

MISLSSKATISNTIASHNSYLTNHSYTHLKHTASKLQTILAPYRVLKEMLRCGEAVQPPHTCLFYFRFYIRLLGLWPAKRAAENQLYYFYNLFIMVLFSFFMATIICDLYEASSDFVLLGEDLVVVLGLSLIFFKMILFRMGNVDTDIIINEFDALHIKHARGLSEDSRNRRILQWQRNFFFGEMCLFSGFYILSLLLFAAMSLQPLLSQQTLPFRCKFPFGLNDPDEHPIAFVCVYFFQYFCTLYMLVAIVVMDSLGGNSFNQTTLNLRILCENIRHLGIVAAGASSSTSEAVAWRELREAVEFHQKIIGLMNRINQTFYWNYVSQMGASTFMICLTAFEALLAQDKPMVAMKFQTYMFSAFMQLLYWCWMGNRTYYDSMEVATAAYEIRAWYEHSPRLQRQLMFIIKRAQKPLEFRAKPLFGFTFASFTSILSTSYSYFALLRTMSD

>BcorOR43a.2

MQFCSELFNWSLAFIRRIGYFDQHRLAWFYLMSPIFLCFMAYYRTYIIRNDLDEVFVNLFKLSGVTTTTIRAFIVMYKAEKFLNFFESVDKWYLELQREGDDVTFKKAHEFTQKIKKTSKTVLILSGITMLYISFIQLLATVGVGYKRLLIDVAFPGVDLYESPLWEIMSILQSLWIGPLIFFSYVSYLCLTVIAIAFGIFLMKNLQSKLEGMNEMTDEEALKCIKKCVKDHVTIIKYHRDLEVLFSVGSFADVCIFAIIPCVIIVISTMDHDMSLLIADIQLSFMVMISTFIIFWMANNFCCESANIAKSAYNCSWENRNKEFRKYIPLIIIASQKPLQLTAGGLKPINMEFFLTMVRCTYSLFTVLFTMKTEGDS

>BcorOR43a.1

MVNAVVDNPMLSVNVKLWQFLSVLFARDWRRCAVFVAPVCLLNAMQFVYLYQQWGDLATFILNTFFAVSVFNALLRTCLIIKNRDKFEALMEELVTLYDDIQDSGDDYAKSVLAAATKSARNISIFNLSASFSDLVVAMAYPLFQQQRVHPFGVALPGIDVTRSPLYELIYIGQLSFPFTLSSMYMPYVSSFATFSMFGKAALQILQNNLRNLCDDMKSKTEEELFETLRKNIAYHARIARYVSDFNELVTYMVLIEFLLFSCVICSLLFYINITTSTAEKISIVMYIGTMLYVLFTYYWQANGVLEMSLLVSDAAYEMQWYNCSPHFKRTLLIFIARTQNPLQIRVGQMHPMTMEVFQSLLNNAYSYFTLLHNLYND

>BcorOR42a

MRQSPRQATADLPKIGLALALHNDIATQRDIKIKASSSAKALSENIEEEAAEHHVSSQDTTNYLFKSAFGMGLVMPSRYRALYVFYGFLVNFFTTFYFPIGFTLILFTLPDDVNISNLLTSLQVTFDVYGGSAKIIIMKFVLEKLRATQILTQRLDKRCRASDEVEELRQMVRFGKKVVIFYLTIFLCYSASTFLASISSGYPPYSLYFPFLKWRRSRTEFIIASLLEFIIMDFACLQQTVNDGYPVIYINMLRCHMKILQFRVEKLGTNPTLTQVEQLSELKLCIKDHQLLIELYDTIAPIISITLFIQFALSAVCIGTALINIVIFANEFQTQVACSFFILAVLIEIYPACYFSQCLINESDKLADVIFHSNWIEQSPEYRKLIIFFLQRSQRPMFLTAGKLFPVTLSSFVSIAKFSFSLYTFIEKMNLKERFGIE

>BcorOR19a

MTLKINSWDAFKYHWRVWDLSGFRGPQRQSVWYIPYKLYTIAITLLFSIYYPICFTVESFLADNLNDFCEVIYIAMADMTLNIKFLTLFIVRRQLLELRPILKRLDARAKTEEEMNVLQEGIDSAKKCFLIILRLFYSAFVTSQLMVIFSAEARLMYPAWYPFDYQASRTKFWIAYGYQTIGFLVQCTQAVSVDTYPQAYMRVLTAHIRALSLRIERIGRKNFSGASSELMCSKEDEMKRNYDELVSCIKDHKKIIELFSIIQKTISGTSMAQFVCTGAAQCTIGVYMLYVGFNISIMLNMAIFFVSVTMETLILCYCGDLFCQECEELSKAIYNCNWTVQSSEFKKVLCFFLFRSQRVNVLRAGNWIPVRLPTFVVVVKSSYSIFTLLSSFK

>BcorOR10a

MNFRFLSRTFPLRDYYFYVPKLCLGALGFWPLDTSVLNASNVWAWVNLIILTIGVFTEIHAGCTVLKTDLELALDTLCPAGTSAVTLLKMALIYYYRKDLAWVLKRMHDLVYERDVSINTVKKHIVRAHAVMAARLNFIPFVMGFITCTSYNLKPLLMTLILYMQGQEPMWKLPFNMTMPSFLLHAPYFPLTYIFTAYTGYITIFMYGGCDAFYFEFCSNTAALLELLQKDLESIIKFDQLILTMEESTVLEWRLVQFIKRHNDIIELTRFFCKRYTVITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIGYTIAVLGQLFIYCYGGSMVAESSVQLATVAFGCDWHACNPRLRRYVLMIIMRSQRAISMSVPFFAPSLITFTSILQTSGSIIALASSFK

>BcorOR7a.8

MFELLTGRGIRNVASKDALIYFFKGCTIVGISPPKNAGPLYYMWSFLVNAACIITGPITATVGFVMKYMQNIITTVQFLNGLQASLNLIGLPVKCLTVTSALRRLRGMEPTLAALDARYTRPEDVALIRKAALMGNRMVFFFGTSYLMYMLFTVIPPLISGKAPLSVWIPFYDEHQSTMHFFGQIVYDLFLMGFVLFHQVLYDSYGSVYIYVISTHIQLLVRRVGRLGTDATQSKDDNLNELVDCVVTHQQILELLATIEPIISKTIFTQFLIISSILCVTMVNMFFFADRSTQIASTLYFLCVLLQTSPCCYFATELKADSEKLPLAIFHCNWPEQDRRFRKVILYFMHHAQLSIELMAMQLFPINVATNISLAKFSFTLFTFIKEMGIGQEAKK

>BcorOR7a.7

MFDLIKGRGRTVFASRDAVIYLFNSFRFLGFNPPAKYRLPYFMYSAIITFFSVLFSPVIFNVGWLRDRNKLSVMEILTCVQASLNVMAVPLKCITLAMAHKHLRGIEPMVTELDERFPTPEDKVKIKQCAVTGNRLVFGFAVSYFMYETLTVVSALVGGHAPLSLWIPNVDWHRSTWEYWLQVSFDTAVLFFLLYHQVLNDSYPAVYIYIIRTQVQLLTSRVEKLGYDEQKSVDENYQELLECIVIHQKILKIVKIVESVVSITVFTQFLVAAAILGVTMINIFIFADLTTKIASVTYFFCVLLQTSPTCYHASYLLDDCDQLRIAIFQCNWIAQNKRFNNLLIYFLHRSQDSMPFFALKLVPINLATNLSIAKFSFTLFTFIQEMGLGENLKG

>BcorOR7a.6

MSKILRVRGATVYKSRDALTYIFNIFTFVGTNPLENRSQRYYSLYYFYSFTVNFICCLFCPLSFHIGYIKLRHVLTNSQLLAAIQNAVQVSGIPIKILIITWYMKRLRHAFEILDELDVNYTRREDLAKIRECVRRCRKIVLIFCFPYYSFELSTIALGVVQNRAPLAAWVPFLDGQRAAWEYWTIVLWDAFVMFILLCHQLGSDTYPPIFINIIRTHIQLLITRVNRLGRAGALTADEHYEELLGCIRSHVQIVSIAKIVAPVISVTLFTQFATTATTLLNWLGNVEYPENIISLAFFSCQLLQILPCCSSASQLIADCERLPDAIFHCNWVDQDRRFRRAILFFLQRTQNLIRFSCLKLFDVKLETSVAIGKFAFSLYTLLEETKVGTDTEN

>BcorOR7a.5

MRKIADLFYGRGKDDFETTDSFALLSRSFAAIGFLPKLPKRTVDVIHQLICWSCVLSCPYLFLSGVVKTMHSLPITIVLAHLGVAINTIVFPLKAIYIKANIDRLDDIGKIFKALDKRYQRPQDQMQIRDSVKTCTRIFLVFCMVYWLFGTSSWLVALRTHEYPNGNNLPFIDWLPESNLRFWLHFIFEIVFLHELIQMSLTMDSFPALYIRALRTHINLLTDRVSRLGLNPDFSDQENFEELVDCIVSHQELLQISDTVGKILSLTTFFQFTIYAVILCVCMLNMFVFGEASTKLVTLVYLLPVFWQTIPTCYQASMLEADSAKLPLAIFHCNWLALDKRCHKLIIYFMQRAQEEISFTAIQLFVINLRTNLSIAKFSFTLYTFINEMGFGETLKDRLE

>BcorOR7a.4

MRRLTDLLYGRGATKFETNDGFQLLFQCWSLVGIKPLKLYRLRGMLHMCFCWFLLLLCPFTFFMGYLHTLETEPLTVQLNILQAICNIIGLPLKAIAITILLTHLRSAEPIFARLDARYESVASREQIKNCVVVSTRLLASVGLMFHFYGITTYLQALLTRGYPMGEWLPFTDYILRPTIRYWAHFIFEVFHVAFLLTVQTSMDVFPAVYIRNLRTHLKLLTERVSHLGENPEFTDEENFDELVDCIVTHQELLEAKNILSSVCSITLFVQFVIAAIALCIALLNFFVFADTVQRVVTLLYYLGLIMQITPTCYQASMMEVDSAKLPDAIFHCNWLAMDKRSRKLIIYFIHRAQEKISFVALKLFNINLTTNLSIIKFGFSLYTFMNNVGFGQNLKELLE

>BcorOR7a.3

MQRFSDFIYGRVKSDCETNKPFKVLLAFYGLIGLKAKPHGFLPTLHMVFFCVAYAYAPFLAIVGFLRYQKTATVTESLSALQAFINAIFAAAKSIAVLVNFKRFQSVEPIMKSLDERYKTPQERRKITDCVADCTRLYAAMGFIYYLYGLINILTALIIHKQPFGGWYPFLDWINNPTVHFYSCFSCETWYLYFLLTAQYLHDVYPTLYMRTIRAHMQLLRERIGRIGMDPEKSVDENNKELIDCIATHQQILQVVDMVRSVCSPTIFMQFVCVALVHCVCMVNIFIFADTLNRVITMWYYLMVATQILPTCYEASTLEMESSKLPVAIFHCNWLALDKRGRKLILFFIHHAQEEVTFVAMHLFEINMRTYLSIAKFSFTLYTFANEMRFGQNMKELVE

>BcorOR7a.2

MRSFRDLYYGRGGEEFETNESFQMISSTWAILGIKSLKPYGFIRTLHVAFGYIGLVMCPVVFVVGFIQVTKQTSSMTVILTALQVSLNSLGLPVKAFVRVIYLDRLRSVEPIFKGLDERYQNPQGRFAIRDNVIQSAHLFVTLLALYLAHCTVSLPTSLYMHTQPLNIWLPLVDWIPHPTIQFWSHFVIEVVYVYFLLMAQCMNDIYPAVYIKAIRTHISLLVDRVSRLGENPELTDEDNYHELIDCVRSHQELLQISSAVGSVVSITLFIQFLVAATVLCVCMLNLFLFADASHRAQTIVYYLCVLMQTSLPCFYASMLEMDCAKLPDAIFHCNWWKMNKRSRSVLIYFLHRAQKEISFVALKFFQINVGTFLSIAKFSFSLYTFMNQMGLGQNIKNQLE

>BcorOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSIHLVLVLVQFLLILVNLALNAEEVNELSGNTITVLFFTHSITKFIYLAVSQKNFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFAFEKETNSTITVEIPRLPIKSFYPWNAGAGMFYIISFAFQCYYLLFSMVHANLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGANPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKITGVNVYAFTTIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>BminOR24

MSKILRVSRAKIYKSRDAVSYLFNIFTFLGTNPLEHRSRRYYFLYYFYSFTLNFISLLYCPLSFHIGYIKLTHVLTNSQLLTAIQNAIQVSGIPIKVVAITWYMKRLQHAVEILDELDVNYTQREDLAKIRECVRRCRKVILLFCLPYYSFGISTIALGVLQNQAPLTVWVPFLDGKRAAWEYWTIVLWDTLVMFILLCHQLGNDTYPPIFIKVISTHMQLLVTRVNRLGRPGALTADKHYEELLACIRSHVHIVSIAKIVAPVISVTLFTQFATTATTLLNWFGDMEYPENIISLAFFCCQLVQILPCCLSASQLIADCERLPDAIFHCNWMDQDRRFRRAILFFLQRTQTPIRFSCLKLFDANLETSVAIGKFAFSLYTLIHEAEDGGKTDN

>BminOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSIHLVLVLVQFLLILVNLAMNAEEVNELSGNTITVLFFTHCITKFVYLAVSQKNFYRTLNIWNQANSHPLFAESDARYHAIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFALDKETNSTITVEIPRLPIKSFYPWNAGAGMFYMISFVFQCYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEHTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKITGVNVYAFTTVGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>BminOR9

MVHREHDNISGGRGVITVLKLLGLWHYEGAMRIPYILFSGLLHSICTIPYTIMMCLDVLQATDLKKFTNTMYMTLTELCLVVKLVNVWCYSRLLVDFFAAFEHDKLYQLQDVEERLNWRRPQRNFARVVFIYITVSFSAMVSAFIGVLYREDYELPYPYAPPFDWRTPRGYWYAYFYELLAMPITGLSNCAFDMIQSYMLLQLSLCFKLISARLACMGALQEDGASSGFCEVKFHREFVDIVNLIMTLQIFLPCYCGNEIIQHSGSLNNAIYSTEWFRCSPRMRKYLIIYMEMLQRPVCVRAGNFFEISLDTVAIYPACVRAGTEVRNVQRVACATNHGQTIKATMTYELPGFPCIFAQPLLTLDHLMTVLARDRVGPLRLHTGANVLHSRHGIINALRKVIN

>BminOR8-2-1

MRNVLNLFYRRGKDDFETNESFVLLFRSWSSVGFIPKKPKRIADIIHQLICWTCVIICPYIYFSGVIETMSYLPITIVLANLGAAINCIAFPLKAFYIKANIDRLHDVGTIFKDLDGRYQRPQDQMQIRDLVTNSRRIFAVSFILCWFYATLSGLVALFAHEYPHGNNLPFIDWLPESNFKFWLHFTFEVMFLQYLVQVNLTNDSFPAIYIRAIRTHVSLLTDRVSRLGSNPDLNDQENFEELVDCIVSHQKLLQISDTVGTILSLTTFFQFTIYAAIICVCMLNMFIFGNATTKVVTVVYLIPVFWQTIPTCYQASMLEGDCAKLPLAIFHSNWLALDKRCHKLIIYFMQRTQKEISFTAIKLFQINLRTNLSIAKFSFTLYTFINAMDFGKTR

>BminOR8-1-3

MQKFSDVLYGRVESDCDTNKPFKTLLHLYGLIGIKPKPKGFLPTLHMVIVWMAFGFTPLLSIVGFIRFQKTATITESLTRLQAVINAIFIVVKSLVVLVNLKRLENVEPVMKSLDERYNTTQERQQISDCVAACTRLYASMGCLYYSYGTLSILSALISHKQPFGVWYPFLDLISNPTIYFYTCLLLEACYGYFLLAAQYLHDIYPTLYMRTLRTQIQLLRARISRLGEDPDMSDKENHKELVECIDTHQKILQVVDMVGSVCSPTIFIQFSVVAIVHCICMVNLFIFADTINKVITILYYATVGMQILPTCYEASTLEMESSKLPDSIFHCNWLALDKRGRRLITFFIQRAQVEVSFVAIQMFEINLRTYVAIFEEAFTYGKSFTVH

>BminOR8-1-2

MTVILTTLQATLNVQALPLKATVASIYLNRLRSVESIFKSLDARYQSPQGRFAIKDSVMKSAHLFFIVSVSYFTYGTISWLSSVFTHTQPLNIWLPFVDWIPQPTIRFWMHFIFEVLYVHFLLIIQFTNDVYSVIYLKALRTHITLLAERVSKLGENPEFNDDDNYEELIDCVRSHQELLHLVGSVLSLTIFLQFTVAAVILCVCMLNIFIFADASHQAITIVYYVCVMLQTLPACYQASMLKADSTNLPNAIFHCNWLAFDKRSRRLLIYFLHRAQEEISFLAAKLFEINLGTNLSRKGIIPAKRPYISMGYSQVIIFEMLRSV

>BminOR8-1-1

MFQDQVRLPLQRRITSPENTRNMRKLTDLLYGRGAAKFESNESFQLIFQCWSLFGIKPLKQYRSGRLLHMCFCWFCLILCPFSFYMGYLQTLQTAPVMVQLSLLQATVNVLGLPLKAIVITIFQTHLRSAEPIFVRLDERYQSTESREQIKNCVALSTRLFTIVGFMYHLYGGITYFQALVTNNYPLRTWLPFTDYIPQPTIRYWAHFMFEVFHMAFLLSVQFTMDVFPAIYIRNLRTHLNLLTERVSQLGGNPDFTDEQNYDELVDCIIMPTCYQASMIEEYSTKLPDAIFHCNWLAMDKRCRKLTIYFMHRAQENVTFVALKLFKINLTTNLSVSKSCCKEQQ

>BminOR7-1

MSKILRVSRAKIYKSRDAVSYLFNIFTFLGTNPLEHRSRRYYFLYYFYSFTLNFISLLYCPLSFHIGYIKLTHVLTNSQLLTAIQNAIQVSGIPIKVVAITWYMKRLQHAVEILDELDVNYTQREDLAKIRECVRRCRKVILLFCLPYYSFGISTIALGVLQNQAPLTVWVPFLDGKRAAWEYWTIVLWDTLVMFILLCHQLGNDTYPPIFIKVISTHMQLLVTRVNRLGRPGALTADKHYEELLASKIVAPVISVTLFTQFATTATTLLNWFGDMEYPENIISLAFFCCQLVQILPCCLSASQLIADCERLPDAIFHCNWMDQDRRFRRAILFFLQRTQTPIRFSCLKLFDANLETSVAIGKFAFSLYTLIHEAEDGGKTDN

>BminOR5-2

MPATETTISGVSVFHFHDVTLQYLGLMPPTKKLYRYLYYVYSLVLNIIITVGYPTHLMIGLIKSENKSDVFKNMSINFTCSACSIKIFAFWWRLAEVQKIYAIISKLDKHIVRSTDYELYKIYALRRAQHVLYFILVIGLGAAISSEVATIIGGFLGEWRLMYPAYFPFDIERSLWGYPIAHIYQCFGVTAQIFQNLINDTLPPMALAMLAGHVRLLNVRVARIGHDTSVVSVRKQACNTEFLLCVEDYKALLEFRVAIQRLCSLGTFVQILVTAINMGVVIFYLIFFVNGIFTYIYYVVFLIAMPLEIFPLCYYGTSVQMEFEELTYGIFSCNWMDQNAAFKKNLRIFAEQSLRTQIVIAGGMFAVNLDTFFGTLKGAYSLFTVVVQMK

>BminOR5-1

MSFEEKPPGVKELFRTHWTVWKWLGQVTHPEYPKLHIAYTILLNISFSIGYPLHLLLGQLNLKTMQDVLLNLTISVPVAVCTLKYFNIWRNLAKVRHLEQMFNTLYARIDHPEEWIYYRKVIIPYALKVLHLFYFICVGTAITSELTLLIMGFAYEWRLMYPAYFPFDPYATKAGYVTAHVFQIIGLMVQLAENLVSDTYGGMCLTLLAGHANLLGQRVASIGYDERKTQEENNRELVDCIIDHNVLFDCHRTLGDIIGFGLFVQITSASLIMGVVIIYVIFFVGNAFEFVYYALFLFACIMEVFPTCYYATYFEIEFEKLTYQMFSCNWMDQNREFKRNLIVCVEQSLKTRYFRVGGMFRINLQIFFATCKGAYSVLAVALRLK

>BminOR47b

MISLSSKATIDNSISSHNSYLTNKSYTHLKHTASKLQTILAPYRVLKEMLRYGEAVHPPHTCLFYFRAYIRLLGLWPTERTAENPLYYFYNVLIMILFSFFMLYLIFFKMALFRMRNGETDIIISEFDALHVQHANLLRDGPRNQRILQWQRRFFFGEICFFSGFYILSLFLFAAMSLQPLLSQQTLPFRCKFPFGLDDPDEHPMAFACVYFFQCFCTLYMLVAIVVMDSLGGNSFNQTTLNLRILCENIRHLGESAAGTAGACSITSELVVWRELREAVEFHQKIIGLMNRINQTFYWNYVSQMGASTFMICLTAFEALLAQDKPMVAMKFQTYMFSAFMQLLYWCWMGNRTYYDSMEVATAAYDVHAWYEHSPLLQRQIMFIIKRAQKPLEFRAKPLFGFTFASFTSILSTSYSYFALLRTMSDMAGSNQVLQSVDSVVLYRAFWLCWHAVGISTAYNKYFCGLYNLLINVLVTIFYPIHLFLGLFLNPTPADL

FQNLSITITCFICSIKHYLLRRKLPQIHTVQVLLAELDKRVEGADEHAYFQQQLVVGAKNVVKLFSIAYGGANMAAISATLLSKERRLLYPAWLPFRWEASTFNYCAAVIYQIAGVTIQIVQNLANDIYPPMSLCIIAGHVHLLALRVAKVGEDAKKSMKQHNQALIRCIEDHKKLVRIFELTQDTLSQAELAQFISSGLNMCIVLFYLIFYVDNVFAYIYYAVYFVSMAIELLPSCFYGSMLIYEFQQLPSAIFKCSWLGQSREFYQNQRIFVQVSLKKIVPLAGGVIGIQLNSFLGTCKMAYSLYTVCNRMK

>BminOR33ab1-1

MGKKLLVVKSSVNTPVDTVACFDIFWMCWKLMGISINSNKWYVTLYDIVVNIFVTIFYPIHLTVGLFLVPVLSDVFKNLAIIITDVACSTKHYLFRYKLSKIREIQRLLKELDDRVVAQDERDYFNKSIRSAVRRMMLIFCVSYAGDTLASALEVLAKKDRELMYPAWFPFDWSANRYTYYAAVIYQIVGVSLQITQNLAHDTFAPVSLCVMSGQVRLLAMRVSKVGYDESKTLAEHEEELNECIEDHKKLLRIFDLLQDVFWYTQLVQFSSVGLNICLTVVFLLQFADNIFAYLYYTAYFISMALELLPACYYGSKMQEEFQDLPYAIFKSNWIAQRKSFQQNLRIFTELSKKQLTPTAGGIINIHLTSFVATCKMAYSLYTVLMNMK

>BminOR7a2

MTNQMPIVDFKSTHNSLSTMFDLIKGRRRTVFASRDAVIYLFNSFRYVGFNPPAKYRLPYFLYSAIITFFAVLFSPVIFNVGWLRDRNKLSVMEILTCVQASLNVMAVPLKCIALAMAMNRLRGIEPMVTELDERYTTPEDRAKIKQCAVTGNRLVFGFAVSYFLYETLTVISALVGGHAPLSLWIPNVDWHRSTWEYWLQVSFDAAVLFFILYHQVLNDSYPAVYIYIIRTQIQLLTSRVEKLGYDDQKSADENYQELSECIVIHQKILKIVKIVESVVSITVFTQFLVAAAILGVTMINIFIFADLTTKIASVTYFFCVLLQTSPTCYHASYLLADCDELRIAIFQCNWIAQNKRFNNLLIYFLHRSQDSIPFFALKLVPINLATNLSTSFREGY

>BminOR7a1

MFELITGRGIGIASSKDAFIYFFKGCTIVGLSPPKNSGLLYYMWSFSVNAICIIISPITGPVGFVIKYLQNTITTVQFLSGLQAALNLIGLPVKCSTVTHALKRLRGIEPTLTIMDARYTRPEDVALIRKAALMGNRLVFFFGTSYFMYMLFTVIPPLINGKAPLSVWIPFFDEHQSRIHICVQIVYDLFTMFFVLFHQSLYDSYGSVYIYVISTHLQLLVRRVGRLGTDATKSQDDNMKELVDCVVTHQQILELLATIEPIISTTMFTQFLIISSILCVTMVNMFFFADRSTQLASTLYFLCVLLQTSPCCYFATELKADSEQLPLAIFHCNWVEQDQHFRKVILYFMHHAQLSIELMAMQLFPINVATNISLAKFSFTLFTFIKEMGIGQNAKN

>BdorOR7a-like

MRSFLDLYYGRGSEEFETNESFQMIFSCWALLGIKPLKPYGFLRSLHVAFGCICLFMCPVFFAVGFMQVTQNSSMTIILTTLQATLNALGLPLKTFVAYFYIDRLRSVEPIFKSLDGRYQNPHGRFARREHVIQSAHLFVTLLALYFAYCTVSWLTSIFTHTQPLNTWLPLVDWIPHSTTQYWLHFVIEVVYVYFLLINQGMNDVYPAVYIKALRTHIILLADRVSRLGENPELTDEDNYKELIDCVRSHQELLQISRAVGSVFSITIFIQFTIAAAILCVCMLNLFLFADTNHRAITIVYYGCVLMQTLLTCYQASMLEVDCEKLPIAIFHCNWWNMDKRSRRLLIYFLHRAQQEISFVAVKFFKINLGTFLSIAKFSFTLYTFMNQMGVGENIKHQLD

>BdorOR49a

MDFVQFFWFPNALYRIVGYDFQQLPRAHWRKALMKAFLIFTTISGICTRIYMLFQLRELILSGDILNSFRLGVYISYAIDSNVKFFVFLLNAKRLRVIYQSLSNEYPMTSMEQKLYQVDKYSFKRARIMIVSYLSVTNSILIGPMLQSIFMYIIDLFRYGYAAAAFSYLHPTPMSYNFNYCTPHYYILIYISEYLNGHFCTTTNLGTDLYVCTFAGQFCMQLEYLGSSLEAYEPSMDNSKADCKFLMEWIRKHQLMLDLCSELNEVFGTTLLFKLISNCAVFCIIVVQLKLEGFGFGFLNFLSFFFVTVAQFFMVCQYGQKLITISENLALCAYKNRWYNGSQTYKTLLFNIIARAQKPARLTAKGFQPISLATFQIVMTMTYRVFAVLQRALD

>BdorOR47b

MISLSSKATISNTIASHNSYLTNHSYTHLKHTASKLQTILAPYRVLKEMLRCGEAVQPPHTCLFYFRSYIRLLGLWPAKRAAENQLYYFYNLLIMVLFSFFMATIICDLYEASSDFVLLGEDLVVVLGLYLIFFKMILFRMGNVDTDIIINEFDALHIKHARGLSGGPRNRRILQWQRSFFFGEMCFFSGFYILSLLLFAAMSLQPLLSQQTLPFRCKFPFGLNDPDEHPIAFVCVYFFQCFCTLYMLVAIVVMDSLGGNSFNQTTLNLRILCENIRHLGIVAAGASSSTSEAVAWRELREAVEFHQKIIGLMNRINQTFYWNYVSQMGASTFMICLTAFEALLAQDKPMVAMKFQTYMFSAFMQLLYWCWMGNRTYYDSMEVATAAYEIRAWYEHSPLLQRQLMFIIKRAQKPLEFRAKPLFGFTFASFTSILSTSYSYFALLRTMSD

>BdorOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSVHLVLVLVQFLLILVNLALNAEEVNELSGNTITVLFFTHSITKFIYLAVSQKNFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFAFEKETNSTITVEIPRLPIKSFYPWNAGAGMFYIISFAFQCYYLLFSMVHANLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKITGVNVYAFTTIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>BdorOR43b-like

MLSRNMRSFFDLYYGRGSEEFETNESFQLILWCWALIGVKPWKPYGLFRSLQMAFCWICLLMCPFTCIVGFIQVSKQTSSMTVILTTLQTTLQSVSLPLKALVTAFYLDRLRSVEPIFKTLDGRYQNPQSRFAITNNVIQSTHLFVTLVVSYFTYGTISWLSSAFTHTQPLNIWLPFFHWIPHPTIHFWLHFVIEVVYLHYLLIVQCMNDLYPAVYIKALRTHITLLADRVSRLGENPELTDEDNYQELSDCVRSHQELLQISRAVGSVISITLFIQFTIAATVLCVCMLNLFLFADASHRVITIVYYLCVLSQTSLTCYQASMLELDCEKLPDAIFHCHWWDMDKRSRRLLIYFLHSAQKEISFVAVKFFKINLGTNLSIAKFSFSLYTFMNQVGVGQDVKHEFD

>BdorOR92a

MNAIERNTNFTRFTAGPVRYFKFLGILLQQPEMPHSKYQRLLIVVTIALMFLHQIGYILEPGRTFAEQSAAAGLLNYTTVSGGKILFLVYNRRLLLSNHCQLAALYPSAAVERHYKLEHYLRIYAHVQTLLYNFFKYILIVYITYPIVQSFYDLWSSGVYSYIMPTLFWYPVPLEQSLFVYIVYLLFACFCSFCAGLIILSADLCLFSSVSQLMLHLDLLAQRIKELQPAEEGSLSALKAIIEYHQKILTIAKDVNSIFAPSILFSLASSSFILCFSAYQLLDDVSFIFALKVFLLLGYEMKQVVITCYYGDKLMDSSANLFTAVYAHNWTDGSPVYERLVLFMLVRTYRPIALKVAGISDVSLITLKQVLSTAYQIFTVLKTT

>BdorOR7a

MRKIADLFYGRGKHDFETTESFVLLSRSFAAIGFLPKIPKRIVDVIHQLICWSCIFSCPYLFVSGVVKTMHSLPITIVLAHLGVAINSIVFPLKAVYIKANIDRVDDIRKIFNALDKRYQRPQDQMQIRDSVKTCTRIFVVFCIVYWLFGISSWLVALCIHEYPHGNNLPFIDWLPESNLRFWLHFIFEVVFLHELLQMSLTMDSFPALYIRALRTHMNLLSDRVSRLGLNPDFSDQENFEELVDCIVSHQEILQISDTVGKILSLTTFFQFTVYAAILCVCMLNMFVFGDASTKLVTLVYLLPVFWQTTPTCYQASMLEADSAKLPLAIFHCNWLALDKRCHKLIIYFMQRAQQEISFTAIQLFVINLRTNLSIAKFSFTLYTFINGMGFGETLKDRLE

>BdorOR82a

MPEDLFRIQRNCLRVMGHQDIFDNNEASSSDEQKSKSKRQRRCFRHWQALKYVLLLLFMVSAQLPMMNYIIYHIDDLALATACLSIVFTNVLTVIKTSTFLTYKREFKSLMAEFESMYDELQEAGAKKCLVTVNVGAKRFVKLYFGACTSTGLYFTINPLVSMIWAKFQAKPIPLELPMPMRFPFDFESTPGYEFAYIYTVFITIVVVMHATSVDGLFVSFTTNLRGHFQALQYFIETNTFDKSEALLQRELGIYVQYHVRLLGLAQSVQRVFKPIIFGQFLMTSLQVCVIIYQLVMNMGVIMEMVVYCTFLSSILLQLLIYCYGAEFLKTESSAVSTAIQMSQWYNLPPRHRHVLRLMMLRSQREIIISAGFYEASLANFMSILKAAMSYITFIQSIE

>BdorOR43b

MRKIADLFYGRGKDDFETTESFVLLFRGWAAVGFLPKIPKRIVDIIHQIICWCSILTCPVWYFAGLIDMMDDLPITLLLSNLGVAINCIALPLKAIYIKNNMNHLHDINLLFKRLDERYQTPEENIQIRESVKTSTRIFAACCTLYWFFGISSGLVPLFAHEYPHGNVFPFIDWLPEGNFQYWLHSIVEIINLQYLLHLQSINDSFPAVYIRNIRTHIRLLTDRVSRLGLDPDLSDQQNFEELVDCIVSHQEILVISDTVGSILSLTTFFQFTVYAALICVCMLNMFIFGDLKVKVSTLIYLIPVIWQTVPTCYQASMLETDCSKLPEAIFHCNWLALNKRCHKLIIYFMQRTQEEICFTAIKLFQINLGTNLSIAKFSFTLYTFIKEMGLDAHYNQK

>BdorOR22c

MRRLLGPQVPIERSFFRIPRFSARVAGFWPQSTNRHRSWLTALRFYVNTFAVAVGGFGEVSYGFVYLYDLFSALEAFCPGITKVISLLKMTIFFGRHKRWQYVINSMHQLLLLDTSAEKRRIVEPLASFGSALSFVLLLSGSLTNTFFNILPLLKMGYYKWQSLEVELLLPFNVILPEMFVNWPYYPATYLVLTLSGAMTVFTFSAVDGFFLCACVYTSALFRMLQHDIRNAFAELQELEHSTLAQNMRIQHRLTVLVERHNKIIDLCSDFASEFSLIILMHFLSASLVLCFSILDLLLNSSSVGVLTYIFYSIAALTQLVLYCIGGTYVSESSLKVAEVIYDTDWYKCDVRTRRMLLLMICRAQKAKTIQVPFFTPSLPAFRSIVSTAGSYITLLKTFI

>BdorOR45a

MENFADVDKIVAAMTINVQLFTTSGKNFIFLARRKRFLRLNEALERLALKGNKYERELWNATNRPVLPITTAYSVSCQLTVNICVLLPIFKLLFYYIWYNEVVLTLPLPGIFPYDYTLPLYYILTTILTVLLVQLCANTITVVDGLFGWFVYNISAHLQIMRLKLEQLLQLHVDDPNFHRDFVALINYHREIIDLALELDAVYAPIIFLEVTSASLPICFLAYQLSYLSDPANVPFICLLLSSIVLQLMIYCFGGEKVQNECDQLSENIYLLIPWHKLPPKHSRLLLIPFIRSQRVLVLTGYFFTANRSLLVWVSYNKNS

>BdorOR88a

MAPQQEVFGAKSKLCAIEDLCAIEHPYQRYLGLKYVEFKRVNGRLVIPKSNILNFLLFLAVVDCTGNVIKTAIAINDRDVTKAQEVFAVFGMGLVMTMRGFMLGLNRGKLLKMFNAIDRIFPRSEHLQQHMEVEKVHNYIKKRFFYLHWFLTVSVCGFIFMPFVKFMAFHGFKSDAPVSEEFHVNASWLPFGVKDKVSTYPYIYVYELFLATAASHMLVVWDQIFVILISQLCMYYEYLGKLLAEMNVPDAMDPTKSDAVFKQLHDYIYMHQYLNNLAVQLNDLFNFSILSSDAGIAISICFNVVLITEAKNNLQIINYTIPLFVEVWLIYDASKWGQMLETVTARINERIYEQQWYDSSIRFGKYTLMWIQSTNEPFRLTVFNMFYVNMKHFQDMMMLAYQLLTFLKAKG

>BdorOR94b

MAVKKWSPRNTSSMSRTASANIIIAVLKALGYWQWTRDPHQPYIEKVERAYRIVLHTTLPFTFIALMLTGVLLSRDLDEIGSILHVLLTEFSLIVKTLHIWRKGGVAWRFMHEVANDPIYDLRQQSEWTKWQQAQRSFAIVSNTYFVAATTVVVFACIGAMMTPADVYVLPMNIYVPFDWHHPRRYWYAWTYNTIASLMTATANAMLDLVNCYFMFHLSLLYKLIGWRLSALRRSANEPPVIEQMSEIFQMHMKVRRLTTECETLVSIPVFSQIILSSFILCFCGYRLQQMEIMENLSMLFSTVEFATVMAVQIFLPCYFGNKVTESSDALTDEIFNSDWTTFDVPTRRFMILYMELLKKPANLMSVNYFIIGVDIFAKTMKNAYSIFALVLNMNN

>BdorOR10a

MNFRFLSRTFPLRDYYFYVPKLCLGALGFWPLDTSAPNASNVWAWVNLIILTIGVFTEIHAGCTVLKTDLELALDTLCPAGTSAVTLLKMALIYYYRKDLAWVLKRMRDLVYERDVSINTVKKHIVRAHAVMAARLNFIPFVMGFITCTSYNLKPLLMTLILYMQGQEPMWKLPFNMTMPSFLLHAPYFPLTYIFTAYTGYITIFMYGGCDAFYFEFCSNTAALLELLQNDLKSIIKFDQLSLTTEESTVLEWRLVQFIKRHNDIIELTRFFCKRYTVITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIGYTIAVLGQLFIYCYGGSMVAESSVQLATVACGCDWHACNPRLRRYVLMIIMRSQRAISMSVPFFAPSLITFTSILQTSGSIIALASSFK

>BdorOR2a

MTLKINSWDAFKYHWRVWDLSGFRGPQRQSVWYIPYKLYTIAITLLFPIYYPICFTVESFLADNLNDFCEVIYIAMADMTLNIKFLTLFIVRRQLLELRPILKRLDARAKTEEEMNVLQEGIDSAKKCFLIILRLFYSAFVTSQLMVIFSAEARLMYPAWYPFDYQASRTKFWIAYGYQTIGFLVQCTQACSVDTYPQAYMRVLTAHIRALSLRIERIGRQNFSGVSSELMCSKENEMKRNYEELVSCIKDHKTIIELFSTIQKPISGTSMAQFVCTGVAQCTIGVYMLYVGFNISIMLNMAVFFVSVTMETLILCYYGDLFCQECEELSKAIYNCNWTVQSSEFKKVLCFFLFRSQRVNVLMAGNWIPVRLPTFVMVVKSSYSIFTLLSSFK

>BdorOR85d

MSKKMIEFGAFMSTANFWYSFNGIVAYDDIYRQPGDAPQQKSFAARFTTVLRQIYSLIGLVNLIWVLIIEASFVVVNFIENSDFLQAARNFTFMGFVIVSILKILSNLRQRSRLSILMQKLYEIYPKQSTDQPPYELQSHLSHYRRIGFMHAFTHAFTVGTYNFLPMINYLFLAPLLQHTDVVRELPYYCWVPFEWRDNWLYYPLYVSQVCASLTGLGGYLASDLLFCAATVQLIIHFRKLARDIEAYQAGCSCATADVCTQQAQRDLDFLSAAVYYHSHTLALCQLINEIFGLPVLINFISTSFVICFLAFQFSIGVPLDSMVALVSYMICCLVQFYMICSYGQELITTSENIGHAVYNHNWLVADVRYKKMLILIIRRAQKPAILKATTFVNISMGTLTDLLQLSYKFFALIRTMYAR

>BdorOR24a

MFLKFLSQSYPTEENVFLIPRFALRIAGFYPGDGNSRRMQAWLIFNFVVLVYGSYAEFMFGIHYLSIDVVRALDALCPVASSIMSVVKLAFLWWHREELDRLIKRVTELIATQNSRLKLADKRRYFTIATRLSASVLFFGTTTSTLYTIRAGIVNYLSHLRGEEIPYETPFKMIFPEPLISMPIFPLTFIFSHWHGYITVAGFAGTDGLFLCFCMYIGTLLKALQYDTKDLLSDVGCGERKHSSEAEIKESLKMIIARHNEIIDLVKRFSAVMSGITLGHFVTSSAIIGTCVVDMLLFSDYGVLVYLVHTMAVSTELFLYCLGGTVVIECSSQLATAVYDSNWYTHTVDVQRMVLLIIIRAQRSLVLKVPFFAPSLPALTSVSKQLRLYPRNMLHQV

>BdorOR94a

MWAQHIIKLELKMTPSAAEQQERIGVARVLMHFLQILGAWPILPEHHHQNARSTQCRTWLARNYRYLLHLPLTFTYNTLMWVEALTRWERADHILYISITEVGMMALTLNFWRLDQRAYHFMHELCYSDHLALRNQAERQWWRAKQRSFTRIAVCYIGGGAGVLCTAFGATLLVNGYSLPYDYWLPFEWHNAQNYWYAYGYELVAMSLTCIANVTMDMMLCYYLFHVALLYKLIGIRLMALQHLSERLAVQQLINIIKLHKRVKRLTAQCEVLVSLPILVQIVLSVFILCLSAYRLQSMQINENPGQFFAMLQFASVLTLQIFLPCYFANEITINSDALTTCVYNSNWEEFSPPTRKLMNLYMELMKRPEQIKAGNFFLVGLPVFTKTMNNAYSLLALLLNMSK

>BlatOR2a-like

MTLKINSWDAFKYHWRVWDLSGFRGPQRQSVWYIPYKLYTIAITLLFPIYYPICFTVESFLADNLNDFCEVIYIAMADMTLNIKFLTLFCVRRQLLELRPILKRLDARAKTEEEMNVLQEGIDSAKKCFLIILRLFYSAFVTSQLMVIFSAEARLMYPAWYPFDYQASRRKFWIAYGYQTIGFLVQCTQACSVDTYPQAYMRVLTAHIRALSLRIERIGRQNFSGASSELTCSKEDEMNRNYDELVSCIKDHKTIIELFSTIQKPISGTSMAQFVCTGVAQCTIGVYMLYVGFNISIMLNMAVFFVSVTMETLILCYYGDLFCQECEELSKAIYNCNWTVQSSEFKKVLCFFLFRSQRVNVLMAGNWIPVRLPTFVMVVKSSYSIFTLLSSFK

>BlatOR85c-like

MSNIIRFEAFLRIPSFFYRSVGIDLWNTNGGSLQSAVFYISLFNVNVWLLSELIFAVLMFTKNFIQATMTLSYAGFVLVGSIKMYFMWRKKAEMTRFLQLMNAIFPRTEPQQKMMNLRSHLRQCTIVMSAFAMIFMILIWTYNLYPYMQRQIYDCWLHMRSVNKTLPYESYIPWNWHDHWTFYLYYTSQSIAGYHSASGQIASDLVLCAM

ATQIIMHYEYVAQRITEYQPQALKGAVRDVKESELYRKDMRFLCDIXEYHANVLSLSDIMNEVLGVPLLVNFMTSSFVICFVGFQMTMDAEPDYMVKLFLFLFSSLFQIYLICHYGQQLIDASNNVSRAVYNHDWVHSHVHYQRMLVLVTARAQKPAMLKATSFVRISRGTLTDIMQISYKFFTLVRTMYNN

>BlatOR85d

MSNQIIHFESFNTLANIFYTSIGLDAYQKAGQRTNNIRRQLLSIFFIITIANMNITLLSELLYIFMAFANNNNFVEATMLSSFVGFVIVGDFKIYSIWRLRARITAMMQALHALYPQTLAEQRQYEVQRVLKRYQRFAYAFVMLHELLVWSYNLFPLLXYFIYEXWLALRVVGKTLPYNCWTPFDWHVNBWRYYLMYLTQIAAGQACLSG

QLANDLLLSAVSVQLIMHYRQLARRIELHVAGGGGDGDGGGSGSKWRXAATNVSRZHDLCFLRSIIAYHQQILNYFYTPSRLSQALNDVFGNSLFISFASTALIICFVLFQITIGANIDAIVMLAFFLFCSLVQIFLICFYAQQILEASEYISFAVYNHNWFDSDLRYRKMLVYIMARAQKPSKLQATSLVTVSMPTMTNTHGLFDKVVQNDP

>BlatOR43b-like

MRKIADLFYGRGKDDFETTESFELLFRSWTAIGFLPKLPKRIVDIIHQIICWCCIFTCPVWYFAGVIDMMNDLPITILLSNLGVAINCLALPLKAFYIKVNMNHLCDVNLMFKRLDERYQTPQEKMQIRETVKISTRIFAACFTLYAFYCIPSRLLPLFTHEYPQGNRFPFIDWLPEGNLKYWLHSIIEMLYFQYLLQLQCTNDSYPAIYIHSIRTHIRLLTDRVSRLGLDPDLSDQQNYEELVDCIVSHQEILVISNTVGSILSLTTFFQFTVYAALICVCMLNLFIFGDLKTRVSTLFYLAPVIWQTVPTCYQASMLQTDCSKLPEAIFHCNWLALDKRCHKLIIYFMQRXQKXIXFTAIXLFVINLRTNLSIAKFSFTLYTFIKQMGLDTHHN

>BlatOR59b-like

MRSFFDLYYGRGSEEFETNDSFPLILWCWALIGVKPLKPYGFFRLLQMAFCWFCLFMSPVVFIIGFIQLTKQTSSMAVIFTTLQASLNSLGLPLKAFVTAFYLDRLRSVEPIYKSLDARYQNPQARFAIRNNVTQSTHMFITLVVSYFTYGTVAWLSSAFTRTQTLNIWLPFIDWIPHPTIHFWLHFLIEVVYLYFLLITQCMNDLYPAVYIKAIRTHITLLTDRVSRLGEDPELTDEDNYHELVDCVRSHQELLQISRAVGSVISITLFIQFTIAATXLCVCMLNLFLFADASNRVITIVYYLCVLTQTSLACYQASMLELDCARLPDAIFHCNWWDMDKRSRRLLIYFMHRAQKEISFVAIKFFKINLGTNLSIAKFSFSLYTFMNQMGVGQDVKHEFKSVG

>BlatOR7a-like

MFDLVKGRGRTVFASRDAVIYLFNTFRFMGLNPPSHCRLLYYFYGSIVTLFAVPLSPLIFNVGWIRDRNILSVMEILNCVQAALNVIGVPIKSITLALSLGRLRSVEPLLSKLDARYTEPEDLAKIRACAITGNRIVFGYIISYMMYETLTMVTALLGGHAPLTLYIPYVDWHRSVWEYWLQASFDGAMLFFLLFHQILNDSYPAVYIYIIRTQVQLLTNRVRRLGTANKSQEETYHELQDCIITHQEILRLVSIVEPIMSLTLFVQFFIAAAILGTTMINIFIFADFATRIASGTYIFCVLLQTFPTCFYATHLQSDCEQLSMSIFHCNWLSQGKRFNTMLLYFLHRTQADIPLFALKLVPINLSTNVSIAKFSFTLYTFIQKMGVGKNLK

>BlatOR47b

MISLSSKATTSNTIASHNSYLTNHSYTHLKHTVSKLQTILAPYRVLKEMLRRGEAVQPPHTCLYYFRSYIRLLGLWPAKRDAENQLYYFYNLLIMVLFSFFMLYLIFFKMILFRMGNVDTDIIINEFDALHIKHGRGLSESPRNRRILQWRRSFFFGEICFFSGFYILSLLLFAAMSLQPLLSQQTLPFRCKFPFGLNDPDEHPIAFVCVYFFQCFCTLYMLVAIVVMDSLGGNSFNQTTLNLRILCENIRHLGIVAAGASSSTSEAVAWRELREAVLFHQKIIGLMNRINQTFYWNYVSQMGASTFMICLTAFEALLAQDKPMVAMKFQTYMFSAFMQLLYWCWMGNRTYYDSMEVATVAYEIRAWYEHSPLLQRQLMFIIKRAQKPLEFRAKPLFGFTFASFTSILSTSYSYFALLRTMSD

>BlatOR67c-like

MPSFKSSEPAPTVPDFVDIPLFQIKFMGAKLFKWIPDEPNSKLQIILLGTFCIFATFNFTSMLLFVIKDQLETSLDITEFILFWGFALNAMMKGGTMVCFRHEIESILKGLIAKHPKTAEERAAYQLVPYFRTINISNKYLSIWHLSITSIFVVHPLIASIHGYVSREDKNKSFDFTLPFMMTYFYDINQPIAYAISYLLQCCGAFHVSLLFLSGDLLLISMVHLVNMHFGYLIYKIESFQPTGTDADMKVLGPLMVYHNEMLNYAERIDNTFGVATLLNYVGSCLVLCLIGLQIAMGSEAVIVIKFIGFLVSTIVQVFFVSYFGNNMKDLSTGISDAFYNHPWYDANYKYMRMLVLPIARSQRYAHLTAFKFFEISMDSFKSLCTTSYQFFTLLRTSMEEEDS

>BlatOR94a-like

MAIKKLANFRTLEPILTVLGLWQGGDSSWFKRHYRYYQLFMHTTITFTFASLMVLEVIYSESLDYAIDVLKYMLVEMAIICKVLNAWYYAQPTAELVNELEDSAIFELHTSAEEQMWQKSQKNFNKLTXIYMGTGLNSAFCALLAAALMDAKELPYALWLPYDWRDTYFWGIYCYECIAMPFTCLCNITIDLFQAYLLLHLTLCFRVISMRLERLESAGTEDAITTELLNNIKMHQRVKELALKCEQVISLALLSQIMLTFLILCFIIYNMQNVETANDIAHFSENPAHFLAMLQYALIISMEMFLPCYYGNELTVESEKLGIHLYSCDWTAMSAVNRRLIYVYMESLKKPVVLCAGRFFEIGIPIFSKAMNNAYSVLALLLNVNDDEEH

>BlatOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSVHLVLVLVQFLLILVNLALNAEEVNEL

SGNTITVLFFTHSITKFIYLAVSQKNFYRTLNIWNQVNSHPLFAESDARYHGIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFAFEKETNSTITVEIPRLPIKSFYPWNAGAGMFYIISFAFQCYYLLFSMVHANLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKITGVNVYAFTTIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>BlatOR59a-like

MAFEDVKEIFRSHWTIWKWMGQVTHPRYPKLYNAYSILVNIIFSLGYPVHLVIGLLQEKTLQGSLLNLTISLPSIICVLKFYNTWRNFDKVRHLEQMYNTLYARLDHAEDLTYYRKVTAPNAFRVVNAFKVICVGMAVTAELTQLYVGFVYGWRLMYPGYFPFDPHGSTAGYVTAHIFQFIGLLTQISQNLMSDTYGAVCLALLAGHTHLLGQRLARIGYDKGKTQEQHNQDFVDFIVDHNMLLNCQRTLVDIIGMGLFALIISTSLLLAIVIIYPMFFVDNALEYAYYVFFMIGALMEVFPTCYYATHFEYEFEGLTYKIFSCNWVDQNRAFKKNLIVCLEQSLKARYVFVGGMFRINMQIFIAICKGAYSVFTLALNYK

>BlatOR42b-like

MSKILRFRSAIVYKSRDALTYLFNIFTFVGTNPLENRSQRYYRLYYFYSFTVNFICCLFCPLSFHIGYIKLRHVLTNSQLLAAIQNAVQVSGIPIKILVITWYMKRLRHAFDILDELDVNYTRREDLAKIRECVRRCRKIVLIFCFPYYSFELSTIALGVVQNRAPLAAWVPFLNGQRAAWEYWTIVLWDAFVMFFLLCHQLGSDTYPPIFINIIRTHIQLLITRVNRLGRAGALTADEHYEELLGCIRTHVQIVSIAKIVAPVISVTLFTQFATTATTLLNWLGNVEYPENIISLAFFSCQLLQILPCCSSASQLIADCERLPDAIFHCNWVDLDRRFRRAILFFLQRTQNPIRFSCLKLFDVKLETSVAIGKFAFSLYTLIEETTVGTNTDN

>BlatOR92a

MNAIERNTNFARFTAGPVRYLKFFGILLQQPEIPCSKYQRILIVVTIALMFLHQIGYILEPGRTFAEQSAAAGLLNYTTVSGGKILFLVYNRRLLLRSHCQLAALYPSAAVERHYKLEHYLRIYAHVQTLLYNFFKYILIVYLTYPIMQSFYDLWSSGVYSYIMPTLFWYPVPLEQSLFCAAFIILSADLCLFSSVSQLMLHLDLLAQRIKELQPAEEGSLNALKSIIEYHQQILTIAKDVNSIFAPSILFSLASSSFILCFSAYQLLDDVSFVFALKVFLLLGYEMKQVVITCYYGDKLMDSSANLFTAVYAHNWTDGSPVYKRLVLFMMVRTYRPIALNVAGISDVSLITLKQVLSTAYQIFTVLKTT

>BlatOR67d-like

MTIKHIKPTASFAKLVKTVRFISSLVGADVSTENYQVNIITIIVIVCIIIYFIFTATTVASVFSENWTYLLEASCMVGSVLQGITKLISGISRTNEVSGMRLELEELYRVYESKGESYCKVMNACCDRVWQLIKMVGLIYGAAIVGNLLLTSFMVFFANQKIYIMHFFIPGVDVETSFGYLLTTALHSLCFLAGAFGLFGGDLFFLIYLGQPELFRDILILKVHELNEAAAQKNNKTESLLISIIEWHQYYTDYNERCNELFYYIITMQILTSGVSIVFTMYIILMGDWPGAYLYILIALSGLYLYCIIGTNIQTCNETFFEELYNINWYELDVKGRKMMILVLMKSQNPSEIKIGGVLPLSVQTALQITKTIYGIFTMMLGFLDEEQ

>BlatOR82a

MPEDLFRIQRNCLRVMGHQDIFDNNEVSSNDEQKSKSKRQRQRRCFRHCQALKYVLLLLFMVSAQLPMMNYIIYHIDDLALATACLSIVFTNVLTVIKTSTFLTYKREFKSLMAEFESMYDELHEAGAKRCLVTVNVGAKRFVKLYFGACTSTGLYFTINPLVSMIWAKFQAKPIPLELPMPMRFPFDFESTPGYEIAYIYTIFITIVVVMHATSVDGLFVSFTTNLRGHFQALQYFIETNTFNKSEALLQRELGNYVQYHVRLLGLVQSVQRVFKPIIFGQFLMTSLQVCVIIYQLVTNMGVIMEMVVYCTFLSSILLQLLIYCYGAEFLKTESSAVSTAIQMSQWYNLPPRHRHVLRLMMLRSQREIIISAGFYEASLANFMSILKAAMSYITFIQSIE

>BlatOR85c

MSTIIKFEQFLGLSSFFCYNIGIKLRGPNDGFWLNFWLYLTSINLFLTVFAECIYIIMTIRSDFIVAIMTLSYVSFIVVAYVKWYYLYNYQTERNAFFQRLEALFPHTKSEQENIKLREYFRLNKLATRGYTITFMVVIWLYNLYTISQRFIYTKLLHVHIERVLPYQALYPWDWRDNWTYYVIYVTQDFAGFHATCAQIAYDLLLCILSIQLIMHYDHISRSLEGYQTKFAEVHGVDINNGLPQLACAAVELRAVKEDIQFISNIVSYHNELLSLSKSLNKLFGMPLFVNFFTSSAIICFLSFQMSVTREVDLLMKLAVFLFFSVMQVYLICHFGQLLSDASTNVASAAYFQDWSYADIRFQKMTILVAERAQEAAALKATNFITISLDTMTVIMQMSYKFFTLLRTMYAD

>AludOR59a-like

RLWLLLGCVREPVRYQLLYRLYSTGINTLIIVVYPGTILLALCNSTNSKDLLQALPICAGAFACSAKYVSYQRSLRLVRQVEQLFNVLDERIQLAEDRNYFAAITRNTNVLLNVFRSVCVFFFIVTIISFISSIGERGLAFAVALPFDWRASTLRYVGVVTLELLLLTCDLLQSMANDSFPAIALCVLSSHTRLLGVRLARIGYKSKDEWANVVELQRCIVDHQHLHRLHATLQEIISMPVFVQYAVTAFQDCFTVITLVFYARNASDRLLYCMYLLALQLQIFPTCYYGTVCANSMDDLRQHAYASNWVEQSRLYRRLMCIFAARSMKITMAYAAGIIPIHVGAFLATLKAAYSFYTFVEGVRK

>AludOR43a3

MEIWVFFNFSSDISIWNKIGHIMHNYQNLQLYSVNVKIFLKFGFIGSASKMKMSLMALVPFITEIGQLFNLFVTLDKDISETGLNFFFLGVVTSGIIRQFIITALKDEKYVRLLRWVECWYHELERSGNPQILGKLQDITKRAQTLTRIGFYAACIGMVGAFSFPFSFEERKFVVDVSYPFFDVKQTPFYEFFFLLQALVLVPTFCCVYLPFTNLLITFLMFGEVVLLDLRLKLNNINKNDETVMLRELKECIAYHKKIIEFRNDVEDLVALVNFFDVALFGLMFCMMLFFISMVDDLQSILTALIFIGFTFYTIAISYYHANKFTNESFEICYAAYNTPWYNGNLQMRKCVAIMIARSQKPLQITAGGLYPMTLETFQAIVRISYSYFSLLQGLNQ

>AludOR83a1

MLPARNQNFSATQVCANPNGCISNVKRQDLFKFVRWLMWFTAFCSIPLENCLPRRLKDYSAHLNVALEIFLLLAVFHIFVLYIFTFYFNYENGDLEFLVSCSIEMLLYSWALSVKIYFRRIRPDLVCGIMEYVNREHITHSAVGFSYVTMKDCLEKSNAGTKIFVGCCFLGVTFRLFLPIFYEERSLPLPCWYPIDYKTTFIYPMAYFLQIVAQLQLAAAFALSSVYFMVLCFLLSAQFDILNCSLKNIVATAYIYMGASRDELIKLREQQYIADAEVNQYFVVKEVAVDLDCLQHLLNPQIPSSANFREGFQRALKQCAEHHRFILCALQKIESLYSMLWFFKTLEVTFAICLIAFDVVKSSNGKSILQVLSLGQYMVLVLWEMLMICYGGEIIYVNSQRCDEALLRSPWYLHSREVRA

DILFFLMHAQRAFKLTGGKFYPLQLQKFREIVTTSFSFFTLLQNMDMRN

>AludOR24a

MLPKFLFQSYPTEKGLFLIPKFTLQVIGFYPEHGKSTRIQAWAIFNMVVLIYGCYAEFAYGLHYLPIDAIRALDALCPVASSIMSAFKISFIWWHRVELERLIKRVGELIAEQNNPRKLACKRSYFTIATRLSASVIFCGFCTSTLYTIRAGIVNYLSYWRGEIIPYETPFKMIFPYPLLSMPLFPFTFTLSHWHGYITVAGCTGADCFFLCFCFYFGTLLKALQYDLQELLDDVDSEGSKNYAECEIEESLKHIVARHNEIIDLLKKFSTLMSGLTLGHFVTSSVIIGTCVVDMLLFSDYGIFVYVVHTMTVFSELFLYCLGGTVVIECSSQIATTIYCTKWYTHNLRVQKMVLLIMIRSQRSLVVKVPFFALSLPTLTSILRFSGSLIALVQSMI

>AludOR33ab1

MLRDLFISKAVRNVPVDSDSFFKIFWMCWKLMGIGIESNKWYIWVYDIMVNLFITIFYPIHLTIGLFLVPTLADVFKNLTINITDVTCSVKHYLFRYKLGKIRKLQGLLKQLDQRVVAEEERDYFHRDIRIAVRNIMCVFCISYFADALASTVDVLTKKERELMYPAWFPFDWAANRYRYYAAVFYQIFGVSMQITQNLAHDTFAPISLCVMSGQVRLLAMRVSRIGYDKSKSRLTHERELNECIEDHKILLRSFDLLQDIFWYTQMVQFSSVGLNICMTVVFMLLFVDNLFGYVYYSVYFFSMAIELLPACYYGSKMQEEFQDLPYAIFRCNWLEQRKSFQQNLRIFTELSRKQLTPTAGGIINIHLTSFVATCKSAYSLYTVLMNMK

>AludOR63a-like

MYSATEMEELKTRNRHGIRELLRISYIVGVNLTTQTSYKKRLLLINVLLIIASSIGLYPHWILIQKAEGNIPLIAETATTALQTTTIIVRMVYYLFAQHKFQNLLHKAETHEILQSCEIFKTDMPITIQLKQEVNAIMSTAWQEARWQLLLCISCTCCILSNYFFCALLKNLYHQIMGTPDYVYILPFTGYPMFLDKGVFCYAMDMFFGACCLIVAGMGGVALYCPFLILCKNACGLVRSLSMLLERSTAPLVPKHRRDEYLRYCVIQHQRTLDFINDVNQLFKHISLSQFLHSLVIYGLVLYEMNFGLESNKVIFVRMIMYICAALTGDCMYYINGQQLATELETIPVACYRCEWYNESEEFKKTLQMIIMRSNKSFFFEISWFGIMSLTTLLGIARASFSYFVLLQDIEEK

>AludOR69a2

MTFRIYKLQNFLEYPELAFKWTFFEPFVWSGNQHRHQPSYGLQMKRLIYIFITSTLAAQVLALFFNLYVTHNSLETESNESGESDLFEALALMCFFSSGLYKMWNIFWRRDDIGRVLEELKELFPSATIQTKLAEANDYKTELKRGTGGCYRFTYYDQKSRTLMGRLARYFTFSYTYYNLVPVVQLIYEMFSPNQSITYTAQTNAWYPFHNQNKHSTFIGFVMSFFVQSAAEYAGAGFVMCGIFLILFLTTQMKLHFDYLASALETLDASAPDALKQLKRLINYHNHLLRLCKDINDIFNLTFTLDLIVATIAISLMGLTMIMISFSRAVMYSAGVSFFLINTYVFCKNGDELTTVTEKLSTALYYSNWYEGSVEYRRMIIFFIMRTSRPCEYQAYGYTVISMETYMRILKLSYQLFTAFGALD

>AludOR7a6

MLDLLRGRYRGIYQSRDALTYLFNIFTFVGTNPLEQRSPKYYHLYYLYSVTVNFICCFFCPLSFHIGYIKFLKVLNTTELLAAIQNAVQVTAIPIKIVAITWHMKSLLSARAVLDKLDANYKRAEDLLRIRKCVQSCCKIIVVFCVPYYSFEVTTIAFGVLQNRVPLAAWVPYLDADRAAWEYWTIVGWDTFVMFILLAHQLGSDTYPAVYISIIRTHMQLLVERAKRLGTDRALNAEENYAELLACIRTHGQIKSLAKIVAPVISITLFTQFATTAITVLNWFGDVEFPENIISFAFFSCQLMQILPCCYCASHLIADCDLLPNAIFHSNWIEQDRRLRKTVLFFIQRAQSPLRFSCLKLFSVSLATGVAIGKFAFSLYTFIQEVGDKSE

>AludOR59b-like

MSNFPKPQLKQLLCSGAATKAPTVVEERPPAEAPMSNAQRIRVQFERATRTPDNNKTLEEHKERSYGAMHDIHSKDGLTYLFRSFMALGVLMPEKHKFLYCIYAILPLGLITFYLPTAFALSYFTLDYSTIKIGNLLTSVQVGIASVVGGVKLLVMAFKLPKLRACEAIMTELDARCKDEDEIEVLRKVVRQGNRVLVLILICNLIYSTSTFLGAALKGRPPYNLYNPVVDWRNSKWEFVWAALWEFILMDGLCAEEAITDSYAPIYVCIMRAHMKTLLMRIQKLGTKPERTPEENYEDLKMCIKDHKSLLKLFDIVHPIISTTYFLQFMTTSLMVGCTLLNIMIFAVDNSARVGHLAYVVALLMEVYPLCYYGQSLLDDSNRLANTIFHGNWMEQNEKFRKMLVVFTQHTQKPMELLAGKLIPINLTTFVGIAKFSFTLYSFINNMGVKERFEGL

>AludOR71a2

MSFDTIANSRLLSRALTLLGLWPVAMGTGSCLQRYYRYYQLFLHITLTFTLTLLMWLDVIFSENLDHATQVLKFLLTEMGLVVKIFNIWYYARMASEFLIEWETSELFVLQTCAERAMWQRAQRTFHKVVIVYVFCSFNTAICALIAVPFMNTRELPFPFWLPRKWREDYYWAMYSYEFIAMPFTCLCNIKTDLFQCYFLLHLTLCLRVIGMRLERLSNAVASESVTEEFVKIIKIHQRVDEMAKCCERIVSLPVLMQIMLSSFIICFIIYRLQNVRFSDNPAEFFSMLQYVVAMSLQIFLPCYYANELTVESQNLSHHLYNCDWTGMPVYNRRMIFVYMEYLKQPLVLHAGNFFEIGLPIFSKTMNNAYSLLALLLNVSDENQ

>AludOR74a2

MRYLPSTYYKPLLPDGRAPPMDWQLYGFLSANGWPLASNVSKKRLIADAVSVICQFISESSVGFGEMRLMYESIDDISFVCTILAPFLILLEMMLRAFNIVYKRNSFRSHLDEFYKKIYIECDWNPELFEKIRRQQLPTKYSTFGYIITLVTYVYVPVSGLVLGQRLLPFPVSYNFDTTASLPGYLLLLAMGLWTGVAVVGPLVAEPNILAMQILHLNARYTLLLRDLSNIAKNTIEMHTRGKGEDTVSVTSRFCYGLSDIIRTNVKLNDFAKSLQAQYSFRVFVMMALSATLLCVLGFLTATLGLSTDNIRFISWIIGKVVELLIFGRLGTTLSTTTNALSTSYYSCGWEDIVLHSTDAAENAKIVKLMTLAIHLNSTPFELKGLNFFSVNYESVVAILRGAFSYFTVIYAYR

>AludOR85c

MALIMRFEEFLHLPNFFYRCVGLVLWGPSGGLWQRLFFHFSVHNLFLTFLAELYFIVVTFKTDLIEATMSLSYASYVAVALVKYYYMLRRKKNMIIFLQRLEVIFPRTKLQQENLRLSHYLQLSKFVTKSYTAMYMVLISIYNLYAIGTRLIYTNWLHVNVIDPTLPYSASYPWNWHDHWSYYVLYVSQGLAGWHATCTQMALDLLLCTSATQLIMHYDYISLSLEKYKSKYAEVYALDVPQRVRVVMELKAFREDMQYISGIVAYHAELLSLSQLLNELFGVPLLVNLFTSSALICFLGFQLSVTRQLDLLIKLALFFFGSILQVYLICHFGQLLIDSSTNVVNAVYFHDWIHADIRYQKMLILIAKRAQRPAILNATSFISVSRGTMTDIMQLSYRIFALIRTMYNE

>AludOR7a7

MRVKKHSCCYQIYVPIYINMYIIFLQKALAPIIRQMFDLIKKHGRPVFASRDAVIYLFNSFRYLGINPPNKYRIPYFFYSFITCFIVLFSPVISNVGWLRDRNKLSVMEILTCVQASLNIVAIPIKSIALAMSKNRLRAIEPLVTELDKYYTRSEDRGKIRKCGITGNRLVFGFAVAYFTYETLTVVAALVGGHAPLSLWIPNVDFHRSAWEYWLQVSYDAFILLLLLYHQVVNDSYPAVYIYIIRTHIQLLAARVERLGYDEKKSVDDNYKELLECIVIHQEILKVASIVESIMSVTVFTQFFVAAAILGVTMINIFIFADLTTKIASITYFFCVLLQTSPTCYHASYLLADCDELRLAIFKCNWVDQNKRFNNLLIYFLHRSQDSIPLFAMKLVPINLATNLSVSYFGL

>AludOR33ab2

MLMRQIDTIAIFRRLFITWRVLGIILWPFNKYLRIVYDLLMNIFVTFGFPLHLVLGIIFSTNQEQFFINLVIGIASVSCTLKHLLLRYRLSEMLMVNEILARLDERVHTNTDYDYYKRFIERPCNFMINFFTRCYFAVSITALLTALVTGELLYPAFVPLAWRTSISQYIVAILFQFAGVSLQIVQNIANDAYGPVVLCMLSGHVHLLANRVSRVSHSSEENIAGNSTDLALCIEDHKLLRSTSNTVERIVSASYLVQFVGVGINLCIGLVYLLFFADNYFAYVYYSLHVTAIMIELFPCCYFGSMLECEFHDLSYAIFRSNWPTQPRAFRRNVVNFTELTLREVTLYAGGMIRINLDSFFATCKMGYSFFTVIQSMK

>AludOR49a

MGIKEFVQVFWGPNTLYQLVGYDFQLLPRPYWRQVLMNAFLIFTTISGICTRIYMLMQLRELIISGDILNTFRLGVYISYAIDSNVKFLVFLLNAHSLRKIYESLAAEYPQTYSDRKLYKVNKYSFRRMRLMICAYLLVSNSILLGPMLQSISMYIIDLFRYGYANATFPYLHPTPMPYNFDYCTPRYYIPIYLSEYLNGHFCTTTNLGTDLYVSTFAGQFCMQLEYLGYSLETYEPSVENSKADCEFLMKWIRKHQLMLSLCADLNEVFGTTLLFKLVSNCTVFCIIVVQLKLEGFGWGFLNFLSFFFVTVAQFFMVCQYGQKLITISENLALSVYKNRWYNGSKEYKKLLFTIFTRAQKPAKLTARGFQPISLVTFQIVMTMTYRVFAVLQRALD

>AludOR74a1

MLYRPRLSNGKYISLSWPITAYRLLNNICWPLRDDASLLEWLFDRFCWVLCFIIFIQHNDAELRYMIVNKNNLDLMLICGPTYLILIEIHIRAFQLGLNKEGFKRFLQRFYAEIYIDKPTHPKHYAKIQQRLRPIWFYSALYFSTLFSYVIIPLTNFFNDTKAPLYKMYYPFDITPYPIYIAVILSNIWVGYTVISMIAGEDNIISEVLLHLNGRFVLLQQKLQEDTERLLHEADGKNIADELSRHIVEATRENVRLYKFCEDLEREFSFRIFISLSFSAALLCVLGFKVFTNPMDSFGFIFWICAKILEMLLIGQLGSTLIATTNQISSAFYESNWERVIQKSTDSYANVRLMKLLLLAIGTSQKPFVLTGFKYFSVSLTAVLKILQGAGSYFTFLTSMR

>AludOR74-like

MHYRPLLPNGKEAPLSWQIKSSFIFGTWPTTENTTNLEKRLHRLIFLWCALLLCAAFCGQFYEVVLQKDDIVIMIQVMLNLLLTLECIIRIGWLALKKDNFQEFLKELYSKIYFDENIDKDMHRKIRKHLRPANIFSVWYLLTMISFYVEPIQGIIIGERYLPYRMTIPFDYRPWPIYTAILIICLNVGCLVLTVVMSESYMLATSIFNLNGRFLLLEEEISNLGDAVLKYENSKTMADHFNQRLIALIKRNVDLIKFADRVESQFTLPLFVMMADSAVMLCLVAFNLNEMGLVPQSIKYIFWLLAKVLELVVLGYLGSVISTRIDGLGTTYYASGWEKVIHKSPNTKANVRTMKLITLAISFNQRPFMLTGMRFFYVSLETTVTILQVAGSYFTFLRSIR

>AludOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSMHLVLVLVQFVLILVNMALNADEVNELSGNTITVLFFTHCITKFVYLAVNQKHFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFAFDKDTNSSITVEIPRLPIKSFYPWNAMSGMFYIISFAYQFYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSASSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGGNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKVTGVNVYAFTVIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>ZtauOR94b.2

MDKLAVLSSRIFPSDPSKGKIGSIEYNVWLAQLFGVPVVGLKAESPLLRIALGIYGVLITLLVTFIYTGFEIYDMILCWPNLDDLSQNICLSLTHIAGVLKVINILYRLDEVAHVVRRIEYSAKTYVVSKSQLVAFYRGEFENKIPLTIYASLVGFTGVLGIIYLFYNPVGVAGQIFPYRVKLPDWMPFGLQLAYMGISVLVFALQIVSIDYLNVTMINQIRFQLKILNLAFEELKLDCGTKKKAHINHDKRLQTIVEHHCLLRDLRIDVEEIFRMPVLLQFFTSLIIFAMTGFQAIVKTENSNGAALIYCYCGCIFCELFVYCWFGHEVSEQSKTLTTSGYSSHWFEFDQRFKKSLLIFMCNSQTPFVFTAGGFMSLSLPSFTGILSKSYTVIALLRQVYSR

>ZtauOR94b.1

MAAKKCSSNSSTSISRISAARFIIFTLKAIGLWQWTADSSQLANSRLSYLFKLQRVHGLILHIPISFTYITLMFTAVLLSQDLEEISSVLHVLLTEFALVVKILHIWRLRNAAWRYMDELANEPMYAFRRQSEWTKWQRAQRSFAIIANSYTLGSLAVVVFGCISVIMTPADVYILPFNFYIPFEWRHPRKYWYAWTYSSLCMLLTCISNVSLDMIFCYFMFHLSLLYKLIGWRLTALRRPKSTRGRVRDGGGEVESEVIKQMAEIFQMHMKLKRLTTKCEALVSVPVLAQIVLSAFILCFSGYRLQQMDNMENVGILISTIQFASVMILQIFLPCHYGDAVTEYSNALTNDIFNSDWTTFDIPARKFMILYMELLKRPANLKAANFFKIGLPVFAKTMNNAYSIFALLLNMNK

>ZtauOR92a

MNAIERNTNFTRFTAGPVRYFKFIGICLQPPEMRSYKYTRILIVLTILLMFLHQIGYILTPGRTFAEQSTAAGLLNYTTVSGGKILFLIYNRHLLLSSHCQLAALYPSAALERRYKLEHYLRIYARVQTLLYNFFKYILIIYLLYPLVQSCYDLWSNGVYSYLMPTLFWYPVPLEQSLLVYIVYFLFACFCSFCAGLIILSADLCLFSSVSQLMLHLDLLAQRISELQPAEPESLSALKAIIEYHQKILILAHDVNSTFAPSILFSLASSSFILCFSAYQLLDDVSFIFALKVLLLLGYEMKQVVITCYYGDKLMDSSANLFNAVYAHNWVDGSPVYKRLVLFMLVRTYRPIALKVAGISDVSLITLKQVLSTSYQIFTVLKTA

>ZtauOR85c

MSKIIRFEAFLRIPNFFYRSVGVDLWNTDGGPLQDAVFYFGLLNVNVWLLSELVFAVLMVSKNFIQATMTLSYAGFVLVGSIKMYFMWRKKADMTRFLQLMNDIFPRTEQQQKIMHLRRHLRQSTIVMSGFAMMFMVLIWTYNLYPYMQRQIYDRLLDVRSVNKTLPYESYIPWNWHEHWTFYLYYTLQSIAGYHSASAQIASDLVLCAMATQMIMHYEYVAQKITEYQPQVGADSGSKTELSNDKELNSQSFATLEHEAYCKDMQFLCDIIAYHANVLSLSDIMNEVLGVPLLVNFMTSSFVLCFVGFQMTMDAEPDYMVKLFLFLFSSLVQICLICQYGQSLIDSSSNIAHAIYNHDWVHSHVHYQRMLVLVAARAQKPAMLQATSFVRISRGTITDNSTFYHLTISIRLTSPLPNFLRFTGKEGC

>ZtauOR82a

MPEDLFRIQRNCLRLMGHQDIYDDDNEAAGDEQKSKSWQQRCFRHSQTLKYALLLLLMMSAQLPMMDYIIYHIDDLALATACLSIVFTNVLTVIKTSTFLTYKREFKSLMAEFERMYDELHEAGAKRCLVTVNVGAKRFVKLYFYSVSCTGLYFTIKPLVSMIWAKFQVKPLVLELPMPMRFPFDFESTPGYQFAYIYTILITIVVVMHATSVDGLFVSFTTNLRGHFQALQYFIETNTYDKSDALIQRELRIYVHYHVRLLGLSQSVQRIFKPIIFGQFLMTSLQVCVIIYQLVTNMGVIMEMVVYCTFLSSILLQLLIYCYGAEFLKIESSAVGTAVQMSQWYNLPPRHRHVLRLMMLRSQREIIISAGFYEASLANFMSILKAAMSYITFIQSIE

>ZtauOR67d.4

MTAERVRPTDSFAKLIKMVRLISSLVGADVSDVNYRVNIITVILILCIVIYFIFTATTVASVFSEDWTVLLEASCMLGSGLQGCTKLISGIFRTKDVSAMRLELEEIYRTYESKGQSYCKVLNESCDRVRQVIKMVGHIYASNTAGIILLTTVLMLTSDRKIYIMQFFIPGIDADTNFGYLLTTAVHMVVFLAGSFGLFGGDLFFLIYLGQPELFRDILILKVEELNVAAAQKDDNTESLLINIIEWHQYYMDFNNRCNDIFYYIITMQILTSGISIICTMYIILMGDWPGAYLYILVALCGLYLYCIIGTRIQTSSETFFEELYNINWYELDIKKQKMMILILMKSQNPSEIKIAGVLPLSVETALQITKSMYGIFTMMLQVMAEEP

>ZtauOR67d.3

MAVKAIRPTETFTKILNFFHLICSLVGADLSNDNYRVNIITVIVILSIIIYFIFTATTVASVFSEDWTYMLEASCMVGSVLQGCTKLISAFIFKNKICGMRAELERLYAEYEVKGDEYVKTLNKSCERMWQVTKVVGQMYLYAAVGIILTLIYFVIATTQKVYVMHFFIPGIDVNTQTGYLITLGVHAVVFMSGAFGLFAGDLFILLFLTQPMLFVDLLVLKVKALNEAAAQKTNAVQRLLIDIIEWHQYYTDYNKRCNHLFYYIISVQIVTSGISIICTLYIILMGDWPGAYMYILIAFSGLYLYCILGTKIQECNSAFCKELCNINFYDLDIKSREMMVLIIMKAQNPVEIKIGGFLPLSVQTALKITKTIYGLFTMMIRFLEEGQ

>ZtauOR67d.2

MKRQTSPSDIYYKMLFVIRFCSRRIGCDIIAEDYKINLNTMVVIVAIGAYYLCSVHTIMKYIATDWTVLLDVFSPVSCTTQGMVKLISVLLYPELYRKLALDIGLIYEKYQELGAAYKEKLLEWNTNMKKLLIAIAIVYFLTALLILCTPIVLYIFKGERHLILLCQVPGFEVDTFHGYWVNNAFNALCVFIAAFGLYAGDLYLILFLTHSIFFRDILTLKIDDLHKLIEADDKEDRQTKLVKDIVEWHQYYLEFNDKCNLLFFWTISAHIICTTLGILSTLLIAMLKDWPGAYAYLLVCFIWLYMYCILGTRVEINNDRFCTGIYDINWYALDVRNQNTIRLMLMQSQAPKNITIAGVEPLSVSTALKITRTIYSLVMMVLRFQNKQ

>ZtauOR67d.1

METKTRPSDNFHKLLKIIRLSSSLIGVDVIDENYKFNYVIGFVMVAIAWNFMCSIYSIYKDVTTDWTVLLDVFSPISCAAQGTIKLCSLMLYPKLYRELAMDLVEIYKKYQAVGQKYETKLFEWNKSMKNILIIGALVYFVSSLLALVTPIFLYIFKGERHLIIMCQMPYVDVATDHGYFITIGYNLLCVFVAAFGLYGADLYVFLFLTHSIFFYDIFALKVDDLHEILRQDNKDKRIKPLINDIAEWHQYYLDFNDKCNQIFFWSITAHILCTTLGILSTLLIIMLKYWPGAYPYIFVCFVWLYMYCILGTRVETCNDQFCDGIYDINWYDLDISDQKTVSLMLLQSQVPRLITIAGIEPLSVNTALKITRSIYSLVMMVMQFNE

>ZtauOR67c.1

MKPAFKSSEFSPTVPDFVDIPLYLLTFIGAKLFKWTPDDPKSKSRIILLVIFSGLTIYNFSSMIRFILFENLETLLDITECILFWGFALNGLMKGGTLLCFRHEIESILKGLIVRHPKTKEERLEFQLVPYYKTINASNKYLSIWHLSITSIFILHPVLTAIYGYVNREDENEDFDYVLPFMMNYFYDVNHPLPYAISYFMQCCSAYHMSLLFLSGDLLLISMVQLVNMHLGYLIYRIESFQPTGMDADMKVLGPLLEYHNEILDYAERIDSTFSLATLLNYGGSCLVLCLIGLQIVLGSEALSVIKFIGFLVSTIVQVYFVSHFGNNLKDLSTGISDAYYNHPWYTGNYKYMRMLVLPIARSQRYAHLTAFKFFVISMDSFKSLCTLSYQFFTLLRTKIENNGA

>ZtauOR49a

MDFVHFFWFPNALYRVVGYDFQQLARAHWRQVIMKAFLIFTTISGICTRIYMLFQLRELILNGDILNSIRLGVYISYAIDSNVKFFVFLLNAQRLRVIYQTLYNEYPVTPIERKLYQVDKYSFKRAHLMMVVYLSVTNSILLGPMLQSIFMYFVNLFHYGYAVAEFPYLHPTPVLYNFNYCTPHYYILIYISEYLNGHFCTTTNLGADLYVCTFAGQFCMQLEYLGYSLETYEPRVENSKTDCEFLMEWIRKHQLMLDLCCELNEVFGTTLLFKLISNCTVFCAIVVQLKLEGFGIGFFNFLSFFFVTVAQFFMVCQYGQKLITISEDLALCAYKNRWYNGSQTYKILLFNIIARAQKPVKLTARGFQPISLATFQIVMTMTYRVFAVLQRALD

>ZtauOR45a

MFKSDLGIKGYFHLQKFTFRRLGIDMTTREARVTQISFLIIQVFALASILIPIGVYSWQHIDDIAEVSNAMAPFMQATITLWKVWRVIYRRKEMAELCENIYLISAKASKLELTHLIQENNRERLMNTAYYYSVLNTGVMALTAPVVVSFIQYLRLGEFSYITALKATYPIDYARPLNYFLIWLWSAVAIYGVIYVSVPVDSLYSWYIHNLVGNFKILQSKLVSAESIAESTADLGKRRELVYYCVAYHQRLIAMSEQLNIIYQPIVFVQFSLNGLQICFLAYQIGSGVVAMVDLPFLLLFLISVGIQLMIYCYGGQHLQNESVNVSKSIYQTINSSPWPNELRKVLLISLMRAQKPCKLTGIFFDVDLPLFLAVWRTAGSYVTLLRSVDQKTM

>ZtauOR42a

MSKLPPQLTAVMAEDVKTTQRNTIVKRNPLSVLEVKNPVKTLSEETVEEDVVQPASTQDTTKYLFKAAFLMGLVMPSRYRALYVLHSFWVNFLTTFYFPIGFTLIFFTLSDEINISNLLTSLQVTFDVYGGSTKFVVMFFMLEKLRATQVITQQLDKRCRAADEVAELQKMVRFGQKVVIFYLTIFLCYSGSTFMASFFSGYPPYSLYFPFLKWRRSHSEFIIASFLEFVIMDLACLQQTVNDGYPVIYINMMLCHMKILQLRVQKLGTNTALTLEEHLSELKLCIKDHQLLIELYDIISPIVSVTLFIQFTLSAVCIGTTLINIVIFANEFQTQVACCFFILAVLIEIYPACYFSQCLIDESDNLSDVIFHSKWVEQSKEYRKLMIFFLQRSQRPMFLTAGKLFPVTLSSFVSIAKFSFSLYTFIEKMNLKERLGIE

>ZtauOR19a

MSLIINSWDAFKYHWRVWDLSGFRGPRRQSIWYIPHKLYMIVITLLFPIYYPTCFTVESLLADNLNDFCEVIYIAMADVTLNIKFLTLFIVRQQLLELRPILKRLDARAKTEEEIGVLQDGIDSAKKCFLIILRLFYSAFVTSQLMVIFSGEARLMYPAWYPFNYKATRTKFWIAYGYQTIGFLVQCTQACSVDTYPQAYMRVLTAHIRALSLRIEAIGRKSFNCDSSEFIPLTKDEMKHNYDELVSCIKDHKTIIELFSTIQKPISGTAMAQFVCTGVAQCTIGVYMLYVGFNISIMLNMAVFFVSVTMETLILCYYGDMFSQECEQLSKSIYNCNWTVQSSEFKKALCFFLLRSQRVNVLMAGNWIPVRLPTFVMVVKSSYSIFTLLSSFK

>ZtauOR10a

MNFRFLSRTFPLRDYYFYVPKLCLGALGFWPLDTCEPGASNVWAWVNLIILAIGVVTEMHAGCSALRTDLELALDTLCPAGTSAVTLLKMALIYYYRQDLAWVLKRMRDLVYERDVSINTVKKHIVRAHAVMAARLNFIPFVMGFITCTSYNLKPLLMTLILYVQGQEPMWKLPFNMTMPPFLLRAPYFPLTYIFTAYTGYITIFMYGGCDAFYYEFCSNTAALLELLQNDLKSILSFGGDKFTLTAEESTVLEWRLVQFIKRHNDIIELTRFFCKRYTVITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIGYTIAVLGQLFIYCYGGSMVAESSVQLATVAFACDWHACNPRLRRYVLMIIIRSQRAISMSVPFFSPSLVTFTSILQTSGSIIALASSFK

>ZtauOR7a.8

MFELVTGRGTGNATSKDAFVYFFKGCTIVGISPPKNAGPLYYMWSFIVNLICIITSPITGTVGFVIKYLQDIITTVQFLSGLQAGLNLIGIPVKCATVTFALKRLRGMEPTLAIMDARYTRPEDVALIRNAAVMGNRLVLFFGTSYFLYMLFTVLPPLINGNPPLSVWIPFVDENQSTLHFCVQIFYDLFIMFFVLFHQALYDSYGAVYIYVISTHFQLLVRRVGNLGTDATKSKDDNMKELVDCVVTHQQILELLATIEPVISTTMFTQFLIISSILCVTMVNMFFFADRSTQLASTLYFLCVLLQTSPCCYFATELKADSEKLPLAIFHCNWVEQDQRFRKVIIYFMHHAQMSVELMAMKLFPINVGTNISLAKFSFTLFTFIKEMGIGQEATN

>ZtauOR7a.7

MFDLIKGRGRTVFASRDAVIYLFNSFRYIGFNPPATYRVPYFMYSAIITFFAVLFSPVIFNVGWLRDRNKLSVMEILTCVQASLNVMAVPLKCITLAMAHKRLRGIEPMVTELDERYTTAEDKAKIKQCAVTGNRLVFGFAVSYFLYETLTVVSALVGGHAPLSLWIPNVDWHRSTWEYWLQVSFDSAVLFFLLYHQVLNDSYPAVYIYIIRTQVQLLASRVEKLGYDEQKSVDENYQELLECIVIHQKILKIVSIVESVVSITVFTQFLVAALILGVTMINIFIFADLTTKIASSTYFFCVLLQTSPTCYHASYLLADCDELRIAIFHCNWIAQNKRFNNLLIYFLHRSQDSIPFFALKLVPINLATNLSIAKFSFTLFTFIQEMGLGENLKG

>ZtauOR7a.6

MPNLIRVGGACIYKSRDALTYLFKIFTFVGINPSEQQSRKYYWLYYSYSLTVNFICCLFSPLSFHIGYIKLWHVLNNNQLLAAIQNAVQVTGIPIKILVITWYMKRLRQAFKILDQLDVNYTQHEDLAKIRECVRRCRKIVLIFCLPYYSFELSTIALGLLQKRAPLAAWVPFLDGQRAAWEYWTIVLWDTFVMFILLSYQLGGDTYPLIFLNIIRTHVQLLVTRVSRLGRDGALSADEHYAELLACIRTHVQIVSIANIVAPVISVTLFTQFATTATTLLTWFGNVEYPENIISFAFFSCQLLQIFPCCSSASQLIADCERLPDAIFHCNWVDQDRRFRRAILFFLQRTQKPMRFWCLKLFVVKLETSVAIGKFAFSLYTFIQESDVGRKSNN

>ZtauOR7a.5

MRKITDLFYGRGKDDYDTNESFVLLFHSWSLVGFIPKKPTRISEIISQFICWTCAITSPITYFAGLIATMGDLPITIVLSNLGVAINCVALPLKAIHIKVNIDRLHDVGLIFKRLDARYQRPEDQLEVREAVKVSTRIYAIFFFLYWFYGTASWLAALFAHEYPHGSYFPIIDWLPESVFQFWLHFVFEVFYLQILLQINLTNDAFPGIYIRALRTHIKLLTERVSRLGLNPDLSDQENFEELVDCIVSHQELIQISDTVGSILSLTTFFQFTIYAAILCVCMLNMFVFGDATTKVVTVVYLIPAFWQTIPTCYQASMLESDCAKLPLAIFHCNWLALDKRCHKLIIYFMQRTQEEISFTAIKLFRINLGTNLSIAKFSFTLYTFINEMGFGETLKERLE

>ZtauOR7a.4

MRTITDLLYGRGAAKFESNESFQPIFQSWSMIGITTLKSNRTRDVLHMCFCWFCILLSPFSFYMGYVQTLRTKPITDQLSLLQAIFNVTGLPLKAIFIKISQAHLRTTEAIFVRLDERCQSAESREQIKKCVVLSARIFTVVGSVYHLYGSTTILQAFFTDNYPLQTWLPFTDYIPQPTIKYYSHFMFEVFHIYFLLTVQFTNDVFPAIYIRNLRTHMNLLTERVSRLGSNPEFTDDQNFNELVDCIATHQDLLAVKDIVESVCSVTVFIEFVAVATAHCICMLNFFVFADRFQQMVILSYYLGVIMQIMPVCYQASMIMEDSAKLPDAIFHCNWLAMDKRSRKLIIYFIHRAQENMTFVALKLFKIDMTTNLSIVKFAFTLYTFMNNMGFGQNMKELLE

>ZtauOR7a.3

MQRLSELLYERVESDCETNKPFKLLFYFWTWIGIKSKPRGFLSTLHMVCVWIMFFFTPFLATVGFIRKLKVSTVTECLSSLQAFINAIAASAKALAVLMHFKRIKNVEPIMKDLDERYKKPHERQQISDCVASCTRLYASIWFIYYLYGNMSILIAIVLHKQPFGGWYPFLDVIPNPTVHFYSCFIFETCYMYLLLTAQYLNDLFPTLYMRTIRTHIQLLRERVSQVGADPDMSDEEKHQQLIDCIDIHQQILKVVNIVGSVCSPTIFIQFSVVAIVHCICMVNIFIFADNLNLMITIIYYITVAMEILPTCYEASTLEMESSKLPVSIFHCNWLALDKRARKLIIVFIHRAQVDVTFVAMQMFEINMRTYLSIAKFSFTLYTFVNEMGFGQNIKELME

>ZtauOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSIHLVLVVVQFLLILVNLALNAEEVNELSGNTITVLFFTHSITKFVYLAVSQKNFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVATAVAWTTITFFGESVKFAVDKETNSTITVEIPRLPIKSFYPWNAGVGMFYMISFAFQCYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGMNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGGALLLHMLTSTIMLTLLAYQATKVTGVNVYAFTTIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>RpomOR47b-like

LYLILFKMFLYRSSIAEIDSIVNEFDTLHAKYAHALLPKTPSNLRIRQWQRNFFIGEIVLTTGFFILSFLLFAAMSLQPLFSHQTLPFRSKYPFGLDNRDEHPIAFACIYAFQCFCVLYMLVSIVVMDSLGGNCFNQTTLNLRILCENIRNIRDGATEEIIWHELRATVEFHQKIIGLIDRLNDVFYWNYVSQMGASTFMICLTAFEALLAKDQPMVAMKFQMYMFSAFMQLFYWCSMGNRTYYESMEVATAAFQVHTWYTHSPRLQRNLMFMIKRAQRPLEFRAKPFFGFTFASFTSILSSSYSYFALLRTMSD

>RpomOR7a-like

MFELLTGRGIANFRSSDAFFYLFKSYTILGSNPPKDTGPLYYIWSILLNGSIIFILPIVCVVGSIIQYARHDIGTMRFLNGIQAGLNVLGMPPKIIIMALSLNRLRSIEPTLAAMDARYKKPEDVALIRRSALMGNRMISAVFIAYMCYMLFSLMPNVIKGGVPFGFWIPFLDWNRSRIDFLAQSVADVFFFFFSLYYQALNDTYGAVYIYVIRAHLQLLRRRVQQLGTDAEMSSEDKMEELVDCIVTHQQILELVAVVEPVISKTIFTQFLIFASILCVTMINIFIFADLSTQISATVYLLCVLLQTSPCCYYATQLMTESEKLPDDIFHCNWVDQDRCFRKAIIYFMHHSQRSIEIKAMKLFTINMATNVSIAKFSFTLYAFIKQMGIGQNAND

>RpomOR67d-like

MPRLKPERPSDVYDKILLVIKICSRLLGVDVTSKDFKVNSKTAFVMVAIFAYYLCSVYTINKYIATDWTVMLDVFSPVSCNAQGMVKLMSALLYAKLYRKLAVQLGEIYEKYQVMGRRYEEKLVQWNRNMKRILITIGVAYSITALIIVCTPVVLYILKGERHQVLLCEVPGFDINSPHGYWVNNGFNAMCVLIAAFGLYAGDLYLFLYLTHSIFFFDIFKLKVSDLHEVIEQNAHDKRITKMVDDIVEWHQFYLTFNDNCNLLFFWTISAHIVCTTLGILSTLLIIMLKDWPGAYVYILVCFLWLYMYCILGTRIETCNDQFCSGIYDINWYSLDVRNQKAIRLMLMQSQAPRNITIAGIEPLSVSTALKITRTIYSIVMMVLRFQNK

>RpomOR63a-like

MIQQAQGHIPLIAETVTTTLQTTTAIVKLIYFIFMQHRFSVILHKAETHELLQCLEIFKTDMPVKMKLKQEINAIMVTTWLESRRQLIYCVILIVCILSNYFFYAIFINLYHQIQGTPDYVYILPFTGYPMFLDKGMNSFYYALDMFLGACSLHVAGMCAISFNCAFMVFCKHACGIVRVLSLMLQHSTSPLVPAERRVEYLRYCIIQHQRIVNFLDEVNQLFKHIILSQFFHSMAIYGLVLYEINFSLESSKVTLIRMIFYICAAFSGDCMLYVNGQFLVTELEAIPLSCYGCDWYNESAEFKKTLQMIIMRSNKEFCFQISWFGVLSLVTLMGVS

>RpomOR33b-like

MLFVMENVKSGISAFRFHDITWRYVGQSPPSPRYRYIYYLYSLILNIIVTFGYPTHLMIGLIQSESKADIFKNITINLTCLGCTIKTLAFWWRLADVRKIYALIQRLDQQIIQSDDVQFYNSNAFRRTKQVLYFDVCVGLGAAIASEVATLIAGVLGNWRLMYPAYFPFDYERSVLGYIAAHFYQCFGVTVQIFQNIINDSFPPMALAMLAVHVRLLNMRLVRIGQRPKRVREINDAELLQCVEDYKALLDFRAAIQRIASIGTFVQILVTAINMGVVIVYLIFYVNDIFSYVYYLLFLVAMPLEIFPHCYYGTVVEMEFNQVTYAIFSCNWMDQSAAFKKNLLIFGEQSLRKQIIIAGGMFAVNLDTFFATLKRAYSLFALVFQMK

>RpomOR30a-like

MVDLHKSPIYEICYLLQALWMIPVGVCSYNAYVNSFLISMSFGTSMMKDLQQKLENLSEMDDVDALRNIKECIKRHIKIIMFRDDLEELYSAMSLIDVMLYCIVLATMLVYSSMDYDGALVFKGLQLLLVQTSLMYLTFHFSNAFSNESLNIANAAYNTNWMQRSTEFRKCIVLIIARSQRPLQLTAGGLKPLTLEAFVGIMRASYSLFSVLQGTM

>RpomOR49b-like

MYFCEQLYNINLVYMKRVGYLGDPKRALFMLAMPTFCCFATIYRIYLIWHNFDEVVANLFKVSGMITITVRTFVVLSKQKKFLDFFNDIDNWYHKLRSENDEVTMKNLEEYTRKTRRASKTIFGIMIVCIFYISAIQLLTISSSTNKSKKNIKNKSSSRTTRYFFTEYLIEVRLPFVDLYTSPYYEIISVLQALWLTPIVLLSYVSYLCVILISISFGIFLMKDLQQKLGNMHELNELEGLKCIKKCIQQHVLIIKFHRDLEVLFSAGNFVDVSIFCIIPCVIIVYANMEYNLAFMITDVQLVFVVIFSTYIIFWLANSFYIEGLNIAHAAYNCNWVDRGKDFRKYIVVIMAVGQKPLELTAGGLKPVNMQFFLAIVRVSYSIFTVLQGTKKDY

>RpomOrco

MQPSKYVGLVADLMPNIRLMKYSGLFMHNFTGGSGLFKKIYSSMHLVLVLVQFLLILVNMALNADEVNELSGNTITVLFFTHCITKFVYLAVSQKHFYRTLNIWNQVNSHPLFAESDARYHAIALAKMRKLFTLVMLTTVASAVAWTTITFFGESVKFAFDKETNSTITVEIPRLPIKSFYPWNAMSGMFYIISFAYQFYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELINNEEKEPTDLDISGVYSSKADWGAQFRAPSTLQTFNGVNGTNPNGLTRKQEMMVRSAIKYWVERHKHVVR

>RpomOR10a

MNFKFLSRSFPLCDYYFCVPKLCLGSMGFWPGDTCRQNAANIGARINFFILAIGVVTEIHAGCSVLKSDLELALDTLCPAGTSAVTLLKMGLIYYYRKDLAWVLKRMQVLVYERGVRINPAKKHIIRAHSVVAARLNFIPFVMGFITCTSYNLKPLLITLILYLQDQELMWKLPFNMTMPAFLLHAPYYPLTYIFTAYTGYITIFMYSGCDAFYFEFCSNTAALLKLLQEDLKSIIGYGGDKLSLTAEELTMLEWRLVHFIKRHNEIIELTRYFRKRYTVITLAHFVSAGLVIGASIFDLMTFTGFGIVIYIGYTIAVLGQLFIYCYGGSMVSENSVALATVAFGCDWYACSPKLRRYILMIIIRSQRAISMSVPFFSPSLVTFTSVLQTSGSIIALVSSFK

>RpomOR59a-like

MSAHSPLPSPLALPLPAALDTRSFFKLHWTCFKVLGIIAPTSNAYYFGYSVLLHLLVTFCYPLHLALALFSNTNASANIQNLAVCVTCVACSMKFIIYATKMERIRELEAIMAALDERVNSSRERRYLAQLRKEIRRITVGFLSIYTLVGVTAELRFIFRNEHNLLYPAWFPFDWRASDLKFYAAHLYQIVGISFQLLQNFVNDCFPTMTLVLLSAHIKLLGIRVSQIGYANRSLDENEEELLRCIKDQEQLYSMLNVIQNIISLPMFLQFTVTAFNICLAMAALFFFVDAPFDRLYYFTYFLSMPLQIFPTCYYGTDFQLLFEKLHIEMYSSNWVEQTQKFRKHMILFCERSLKQHTAMAGGIVRIHLDTFVSTCKGAYSLLAVIMKMNE

>RpomOR43a-like

MPTPIEDNPLLSINVKLWKFLSVLLVRDWRRCVAFVAPVCLMNAMQFVYLYQQWGDLATFILNTFFAVSIFNALLRTCLVIRNRDKFEALMQELVTLYDNIQATGDEHAKSVLAEATRSARNISIFNLAASFSDLIVAMGYPLFRDQRIHPFGVALPGIDVTCSPLYEILYVAQLPSPFTLSSMYMPYVSLFASFAMFGKAALQILQNNLRNLCENMQHKSEPELFDTLRANIAYHARIAKYVNDFNELVTYMVLVEFLLFSCVICSLLFCINITNSAAEKMSIVMYIGTMLYVLFTYYWQANGILEMSLLVSDAAYEMQWYNCSQRFKRTLLIFIARTQRPLQIRVGQMSPMTMEVFQSLLNTSYSYFTLLYNLYND

>RpomOR46a

MERAKEIVDSFYKEQFIFFKCLGLFDLPAHYPARVHFLFKMYFWYVAIFWIFLFDASMWIKIISNITDLN

EIIKVFYVCSMAIAVMAKFVHIRIKTSSFLALFARMHDDDLLPVNKFEMETFTQSLQLSCKVRNCYMYLSLTSLSLVFVRQLVSDPGELPLSIYIPMNVENIWFFILAYLFQFIGASLCCFINISFDSLSASFFIYLRGQLNILSNRLENIPTDKDTTQDVINMQLKDCIRHYNKLLDITEIMEDLLSTPMSVQVISSVFVLVANFYAMTFLTDPNDYATFMKFLVYQLCMLTQIFILCYFANEVSIRSSELPFSLYSSEWTHCNRINRRLMLLMMAQFDIPIRIKTINRCYSFNLSAFTSLISSPEIQKDVTTSLLKWKRS

>RpomOR24a-like

MLPKFLLQSYPTEKNLFLVPKFALGVIGFYPELGKSTLMNAWALFNLVILVYGSYAEFAFGLSFLSTDAMRALDALCPVASSIMSVFKVCFIWWHRAEIERLVRRVAELTAEQNSSRKLDCKRKYFAIGTRLSSSVLLFGFLTSTLYTIRAGIVNYSAYVRGDEIPFETPFKMIFPQPLVSMPIFPLTFTLSHWHGYITVAGFAGSDGLFLCFCMYFGTLLKALQYDLSDLLADVDSEQGSNRYAERDIEEGLKKIIARHNEIVDLIDRFSAVIALMTLGQFVSSSLIIGTCVVDLLLFSDYGVFVYVTHTMTVSTELFLYCIGGTMVIECSSELATTVYSSKWYTHTVRVQRMVLLIIIRAQRSLVVKVPFFAPSLPTLTSILRFTDSLIALVKSMI

>RpomOR69a

MPFQVYKLQKFLTYPELAFKWAFFEPFIWSGNRHRHQPTAWYYIKHCIYIFGLFTLVGQIMALFCNLYMPHTTPEAEAYENSESKVFEATALICYFSCCLYKMWNIFWRRKDIGPLLEKFNELFPSVVIQKKLAEASDYKTEPKRGSGGYYRLAYFEEKSRARMRFMTKYFAFAYFYYNMIPILQLIYEILSPNQTVTYKTQSNAWFPWHNHNKHSTFVGFIFNYLVQASAEFAGINFIMCGEYLFGFFNTQMQLHFDYLAIALETLDATAPDAMKQLKTLISYHANLLRLFNEINSIFNFTFALDLINATFAISLMGLAMVMIEFGRAVMFSAGFSFFLILSYVFCKNGDELTDVSNKLSSASFYSNWYEGSLEYRRMIIFFIMRTNKPCEYQAYGYTAISMVTYMRMLKLSYQLFTSFRAIE

>RpomOR42b-like

MLDLLRGRGLDACKSRDALTYIFNIFTLVGTNPQGQRSNKYYYLYYLYSVTVNFICCFFSPLSFHIGYIKYWNVLSTTELLAAIQNAVQVTGIPVKIIAITWHMKSLLSAREILDELDANYRRADDLLRIRQCVQRCCKIIVIFCVPYYSFEITTIAFGVLQHRVPLAAWVPYLDAQAGAEWEYWTIVVWDIFVMFILLAHQLGSDTYPPVYISIIRTHMQLLVERAKRLGGDRKLNADENYAELLACIRTHCQILRLARIVAPVISITLFTQFATTAITVLNWFGNVEFPENIISFAFFSCQLVQILPCCYCASHLIDDCDQLPNAIFHSNWMDQNRRYRKTILFFIQRTQNPIRFWCLKLFGVNLATGMAIGKFAFSLYTFIKESKVGDKLDK

>RpomOR67c-like

MPLLARTFSEFIHIPIVFYKTIGEDLYEHRSSNRVRRLLLKLLLHIGFVNFNLLVMGEIIFFVKALRSSATILEATGVAPCIGFSFVANFKQIAMTVHRVTLRQHFDQMEEIFPKTVKQQNAYKLPQRERVMRRVMAVFTLLCLAYTSTFSIYPALKASVQYWLLDAPVFERGFGFAIWYPYKTTEKNWVYWLTYLGQVHGAYLAGVAFLSADLVLVASVTQLCMHFDFISRCLEEFGGASQSDVQKDLEYLKALIVKHAKCLKLSEHVNSIFSFSLLLNFLTASLTICFIGFQVTASSKEDIVKYIIFLTASLVQVFVVCYYGDELMTASMRVGDAAYNQNWFDCDKRYKRLLTILIMRSQKPASIRAPFMPPISFRAYMKVISMSYQFFALLRTSMERKGTKFT

>RpomOR24a

MLPKFLLQSYPTEKNLFLVPKFALGVIGFYPQLGKSTLMNAWALFNLIILVYGSYAEFAFGLSFLSTDAMRALDALCPVASSIMSVFKVCFIWWHRAEIERLVHRVAELTAEQNSPRKLACKRRYFAIGTRLSSSVLLFGFLTSTLYTIRAGIVNYSAHVRGDEIPFETPFKMIFPQPLVSMPIFPLTFTLSHWHGYITVAGFAGADGLFLCFCMYFGTLLKALQYDLSDLLADVDSEQGSNRYAEREIEEGLKKIIARHNEIVDLIDRFSAVMALMTLGQFVSSSLIIGTCVVDLLLFSDYGVFVYVTHTIAVSTELFLYCIGGTVIIEFSSELATTVYSSKWYTHSVRVQRMVLLIIIRAQRSLVVKVPFFAPSLPTLTSILRFTGSLIALVKSMI

>RpomOR2a-like

MAARVNSWDAFKYHWRVWDLSGFRGPKTSSPWYIPYKVYTIVITILFPIYYPICFTVKSMLADNLNDFCEVIYIAMSVVTLNVKFLTLFIVRQKLLELGPILKQLDARAKSDEEINVLQKGIDSANKCFLTVLQLFYSAFVTSQLMVIFSAERRLMYPAWYPFEYKASWTMFWIAYGYQTIGFLVQCTQACSVDTYPQAYIRVLTAHMRALSIRIQRIGFQTKSCDSPDTSHLTKAEMKHNYAELVSCIKDHKTIIELFSTIQKTLSGTSLAQFICTGLAQCTIGVYMLYVGFNLSIMLNMAVFFIAVTIETLILCYYGDLFCQECEELSNAIYNCNWTVQSNKFKKALCTFLLRSQRLNVLMAGNWIPVKLPTFVMVSNLCYIKVGMAKKNNIIG

>RpomOR88a

MGLTSGSTKTDKKLCTIDDLCAIYHPLQSYMGLNFMDYKRINGRFAIPSSKLLQVGLVLAAYDCIGNAIKCGAAIASGNVTLAQEIFAVFGMAVVMTMRGFSLELNRNKLSKLYNDLDRIFPRSAFLQQRMEVEKCHRYIKRRFFFFHNFVSAELVPFCTIPLIKFMYAYDFEEKGPVADEFHLNASWMPFGVKENLSVYPFIYAYETILALIAVNMIITWDQVFAVTISHLCMYYQYLAKLLEEIDVREANDPQQRQAFFKQLHHYIYTHQCLNRIASDLNDIFNLSILISDMCIAASICFNLFLVSDASDYLAVATYISPCLTEMWLLYDVAKWGTLLETVTSRINEVLYEQPWYESSLQFEKYTMMWMQGTHEPIRLTAFNIFNVNMKHFQDMMMLAYQMLTFMKSKS

>RpomOR59a

MLNMSILVTVCYPLHLALALFRNSSLAGDIKNLAVCVTCIACSLKFVIYTRKLRIVRAIEQTFAALDARVQSELERKYYFTTMRRSVRNILYLFLCLYAAVGVTAELAFLLREERSLLYPARFPFDWRASKRNFFAANIYQIVGIFYQLLQNFVDDSFPPITSCLLAGHIKLLGMRIARIGYDAADVEEHEKELVQCIKDQKNLYRLFDLLQEVISLPMLIQFTVTAFNICVAMIVLLFYIDTPLERLYYLTYFLAMPLQIFPICYYGSSLQQLFGQLQYEVFRCNWPDQTRRFKREMILFTERALKETTAMAGGMIRIHLDTFFSTLKGAYSLFAVIMKAK

>RpomOR85b-like

MNAIQRKSNFICFTALPVKYFKFIGICLQPPEMLSIKCARVVTVVSIILMFLHQFVYLFTPELTFSERIEAIGLLNYTNVAIGKIFSLIYNRGLLLKNYCELERIYPSVAVERHYKLGRYLRIYARVKSFLHTFFVYILIVYLLFPIAQSFYDLFSTGAYTYRMPAKFWYPLSVEESLLAYLFYISLQCFACVCAAIVILSSDLCLFNSVAQLLLHLDMLAQRILELQPAEKGSMRALKAIIEYHQTILLLAQDVNDIFAPSIIFSLASSSFILCFSAYQLLGDVSFVFGAKVLLLLGYEMKQVVITCYYGDKLIESSSRVFDVVYAHDWTVGSPAYKRLALIMMLRTHKPIALNVAGIADVSLNTLKQVLSTAYQVFAVLKTA

>RpomOR82a-like

MPEDLFRIQRNCLRLMGHQDISDNNELPPRAEQKSRHSLCTRQCQIMKHALLLLFMISAQWPMMDYIIYHIDDLPLATACLSILFTNVLTVIKTSTFLAYKHEFNQLMSEFEMMYDELHEANAKRLLVAANVGAKRFVKLYFYSVSCTGVYFTINPLVGMIWDKLQGKPLLLELPMPMRFRFDFESTPGYQLAYAYTILITIVVVIHATSVDGLFVSFTTNLRGHFQALQHFIETNTFDKSDALLQQELRAYVQYHVRLLSLAKSVQRIFKPIIFGQFLMTSLEVCVIIYQLVTHIGVFMEMVVYCTFLSSILMQLLIYCYGAEFLKIESSAVGTAVQMSQWYNLPPRHRHVLRLILLRSQREIIIRAGFYEASLANFMSILKAAMSYITFIQSIE

>RpomOR82a

MPEDLFRIQRNCLRLMGHQDISDNNELPPRAEQKSRHSLCTRQCQIMKHALLLLFMISAQWPMMDYIIYHIDDLPLATACLSILFTNVLTVIKTSTFLAYKHEFNQLMSEFEMMYDELHEANAKRLLVAANVGAKRFVKLYFYSVSCTGVYFTINPLVGMIWDKLQGKPLLLELPMPMRFRFDFESTPGYQLAYAYTILITIVVVIHATSVDGLFVSFTTNLRGHFQALQHFIETNTFDKSDALLQQELRAYVQYHVRLLSLAKSVQRIFKPIIFGQFLMTSLEVCVIIYQLVTHIGVFMEMVVYCTFLSSILMQLLIYCYGAEFLKIESSAVGTAVQMSQWYNLPPRHRHVLRLILLRSQREIIIRAGFYEASLANFMSILKAAMSYITFIQSIE

>RpomOR49a

MDSVDFGQVFWGPNALFRAVGYDFQRLPRPYWRQILMKAVLVFMILSAICIRIYMFMSLRELVIRDDILNSFRLGAFIAYGIDSNVKFAYFIFNAHRLRQIYDFLAAEYPQTASEQKLYKIDIYGFQRAPVMICAYMAVVASIMLSPLLQSIVTYIIDIYRFGYDAAEYPYLHPIPMPYNFDYCTPRYYIPVYMVESLNGHFSSTTNLGTDLFISIFSGQLCMQLEYLGYSLETYQPSMEKSEEDCDFLRKWIRKHQLMLGLCADLDEVFGTTLLCKLITNCTYFCIIVAQLMLEGYGYGFLNFGSFFFLTVAQFFMVCQYGQNLITISEHLSFSAYKNRWYNGSKAYKKMILTIITRAQTPANLTAKGFQPISLLTFQIVMSVTYRVFAVLQQVFD

>RpomOR94a

MLTKNSPNSSTVISTTRGDRIASVRSLIIVLKVIGLWQWPEDRTQWERTQFLLKLQRVYGLALHLPLTFTLITLMVCAALLSHDLEEISNVLYILLTEFALVVKIFSIWQHGTLAWRYLDELVHSSKYEFRQQAELTQWMREQRLFVIVAYSYIFGSCSIVVFSCFGALYTAADVYVLPYAYYVPFEWRDPHNYWYAWSYCCISVSLTCVANVTLDMIFCYFMLHLSMLYKLIGWRLAALRQRRDAAGAAEVLNEMRHIFQLHESVNRLAAQCETLVSVPVLSQIILSAFILCFSGYRLQHLQIMENVSVFFATILFVSSMTLQIFLPCYYGNMVTVNSNALTNDMFNSDWTAFEIPARKFMILYMELLKRPTTLKAGNFFLIGLPIFTKTMNNAYSFFALLLKMNK

>RpomOR83c

CKALQECCERVWQVIKMVGNIYAATAVGILLLTAILVIVTEKQVYVMHFFIPGLDVGTQFGYLATMAVHTVVFLAGIFGLFAGDLFFLIYLGQPELFRDFLVLKVKALNEAAAEKSKTAEKLLVDIIEWHQYYTDYNERCNYVFYYIITMQIVTSGISIICTLYILLLGDWPGAYLYILVAFCGLYLYCIIGTKIETCNHAFYEELYNINWYDLEVKNQKMIIFILMRSQNPSEIKIGGVLPLSVQTALSITKSIYGIFTMMLGFLDEEQ

>CstyOR115

MAGKYSERFFNIFYLTRRFSELCGADVIKNDYKICWKTGAIFLLINFAIAFTFYTNYVEVIVNGNYYNLLKSASILGTGLQGYTKLINILLQQKSLRFLYQEITEIYEIYELKSTAYKDCLRYSITLVKKLLSTLLTLIVITTLIIIGIPVFMLIFLDTRIEIMPFKIPYIDIETDIGYYVTFVVHTISVFFGGFGNFVIDSWLFIFAAHVPLIKNILKCKFDELDKILEANPKDVEKSRAPLKDIFEWHQKYMLFCKIIKEAFFWVIFVQVGTEFFGIISTIVCIFLGIWPPAPAYLLYLFAMFYSYCSLGNIVEVSNDDVTLIIYDSCWYNLTASEQKMVLIMLRESQQATGISIGGVSPLSMSTALQLTKTVYTLSMMLKEFLN

>CstyOR111

SSLLYIVAHVYQLAAVSILILQDIASDSFAAMNLTLLSGQLRTLSMRVTKLGGDKTKAKTQNNKELLECIQDHKDLLQYRHKLEEVISFYMFFQILFTSINMCSTIVFLILFANDPFTWIYYTVYFLSMAAEIMPVCYYGTIIEIEFQNITYAIFSSNWLDQDATFKKHMRIFAEATKKPLCIMAWLFHINLSTFVFACKNAYSMFALIMNMK

>CstyOR110

YTNNPSTSKEMPLTKAKQNLEFLTTQHLNLLKMGIDINTLKRRELFNNYWKFLWLISCTIYLEYALINFVAHSLSDIDEATGALSIFNQGCLILIKVSMFLAKGDRFLKLIWDMNLLAEKANPEEHKKWLEENRRSQLIGKMYFYACCVAVACASVVPLLFMAYDYQQNSGFNKKLPFGGKFPFDKGGVTAFAINYMLSLIYIYSLLNMTVGIDTLYGWYIYSISAHFRILRCKLESTARKLQNNDCSDFTRDIGLIVNYHNATLQFVEGLNTNFGEILWAEVMLSCLQMCFVAYTLNNDTDVSNMPFNVMVLVAVMMQMIIYCFGGEKIKNESLMLSSEFYLNFPWHKMSAQQKKLMLLPLLRSQKLSVLRGLFFEVDRNLLVYILKTSFSFNALLSAMKE

>CstyOR107

MVLDKTIPHIGKFFAIPLNLFFILGFCIIRWKPNEKPKELQYLFILFLVFNSVYNVAGMLSYTIYEPLETSLEKTAYIIYTTFAGNSVMKFVCCLCNLKKLHQCFKSLEKYYPRTAKEREDYRLDEHLKKMERFNLLLTIYHFLVTSIFSWFPLIQSTVLYYKNEERSFPYMLPFPMHYIFNERTNLGYAFAYTTQCTGSYAASCMCQGADILLLTCVHLINMNLTHLAKTIRDFKPTGTLSDLKQLKQFVTYHNDILSTVNLIDDTFSLSILLNYLCTVTIMCLIGFQMVIGTNIFHLLKFLLFFMSVLTPVYFISKFGTDMMELSSDINEAFMHHSWYDGHILYQRSLIMSIRISQKPVHLNAFKFFIISMETFKSLISISYQFFTMIKTSYVEE

>CstyOR105

MTTKYSHDFAKLFNFTRNFSRMCGADLIREDYKMTALTWFIIAIVNGAIAFTFYTMYVGVAVNHDWTELLKCLCMFGTGVQGYAKLVNGLLRPEMVRFIYRTITGMYSVYELKTANYHKLLKQSVSLVRKLIIILLSSVILVCLAIIGTPVIYKIIFNERIFIMPFFFPYIDYNTDFGYYLTSVFHVICVIFGIFGNFVSDSWCFAFAAHIPLMKNILQAKFNELDELLQENDESKDLKQVAEKLFEIFKWHQKYQEFCNTVKELFFWVIFVQVATEFVSIVCTIVCIFLSIWPAAPVYLVYSFVLFYLHCALGNLVEISNDDVILMIYDCCWYNLSVPEQKMLLIMLRESQQADGMSIGGIAPLSMSTALQLTKTFYTFSMMLRQFLN

>CstyOR104

KDFENTATICSGWQKQPSFILRSCKQMDPSTITNSKYSKQFEKVFNFTRFFSEICGADVVSEDYRMTWVTWSLIGLVNGAIVFTFYTMYVGVAINNDWSEILKCLCMFGTGIQAYAKLINGLTRKDKFCFLTKEINGIYSTYELKSKNYHKLLEQSISLVKKLITILLSIVVLVSLAIIGTPIFYSIVFKERIFIMPFLFPYIDYETDFGYYLTSAFHVVCVFFGAFGNFVSDSWCFVFATHIPLIKNVLQAKFEELDEMLEEEPQDASKVMDLLMDIFKWHQKYIVFSNTVKELFFWVIFVQVSMEFVSIVCTIVCIFLGIWPAAPVFLIYSFVLFYFHCALGNLVETSNDDVTLMIYDSCWYNLNVSQQKMILIMLRESQQAEGMSIGGVAPLSMSTALQLTKTIYTFSMMFREFLN

>CstyOR102

MMLNTEAEVETWQAFKNHWILWKFFGLQPPKRDSKWFKPYIAYAIFLNVTVTLLFPTTLIVNLILSKNLTELCENLYMTTTDVICNIKFLNVFVMRHKLLKVRNILQRLDARAKTHKEVAILEEGLKLARKCFMTFARMFCCAIISSQMMVYLSSERILMYPAWYPWDWKASKRNFLYAHSYQLYGLVLQAIQNLGNDTYPPTYLIILTAHIKALASRIKDLGTNETTTDEDLYKELTDCINDHNTINELFLNIQEIISPTCIAQFMATGLAQCTIGVYLIYVGLHPSKTLNIIIYFSAVTMEIFILCYFGDLYCQANAHLTESIYDCNWMDRDKKFKQAFLVLLQRSQKNSSIMAGSLIPVRMPTFVSVMKTAYSVFTVLNKVN

>CstyOR85b

KEEVSKRQALLASVIFYSGVINMNYVLLSEILYVIMALVKGENFLEATMTMSYIGFVLVGNFKMFFVYRRKDDLTKFVHGLQRIFPDTPELQVEYNMPHYLKQCSRITMSFSWLYMILIWTYNLFSIIQYVVYELWLNIRQVGQTLPYFMYISWNWQNHWSYYLLYAIQDFAGYTSAAGQIAGDLLLTACATQLIMHYDFISYKLASYQVQRSLEGVDKELAYCQDMQFLKNIIQYHTNLLHLTDQLNDVFGKPLLLNFAASSFVICFVGFQMTIGATPETILKLLLFLFSSITQVYLICHYGQHLIDSSTNISNAVYNQNWTAADVRYKKMLILIAKRAQKPAILKATSFVLISRGTMTEIMQISYKFFALLR

>CstyOR82a

MIDLFGRQRQCLRIMGHHFVRDKSLLLRKWRNIVYFGVLMLVMSAQWPMINYAIYYIDNLELATASLSICFTNVLTVIKISTFLSYKWRFVALMTKLETMYQESKDPAAKKILKTANRSALMMVKLYWMSVCSTGMYFMMSPVLKILWSQIHKTEMVLDLPMPMRFAFDIESFPGYEIAYIYTGLVTLAVVMYAVATDGLFVSFAINLVSHLKILQKSIEENTFLKSDEELHGDLKSYIEYHNLILSLYNELREIYSPIVFGQFLMTSLQVCVIVYQMVTHMDTILVLIINITFLTSILLQLFIYCYGGEILKLESLMVGISVQISNWYNLKPSHRRMLVLLMLRSQREAIIKAGFYEASLANFMAILKAALSYITLIQSIE

>CstyOR74a

MFNILYRPRLPNGKHVPLNWSLKLYRWTNIICWPLEDNAPYWCHLFDRFLWFLGFVTFVVHNDAELRYLSVYFNNLDEMLTGVPTYLVLIELHLRAFSLGWRKDDFKRLLKKFYAEIYIEESMNSQLFKKIQRQIWPILTFSLLYFLALNSYIVTGVYVLSTNKRELLYKMIPPVDYKNNFYIFFPLLMSNIWVGFIVTTMMFGEGNTLGILIFNLNGRYIMMREAFNNKVETLLRSNLNSNIVEKYERVLTETLKENIRLNKFAREIQDEFSFRIFVMFSFSAISLCALGFKVYTSPVNSIGYAFWAIGKIQEILAFGQLGSTIISTTDQLSSMYYESKWETIIERSSHSPDNVNLMKLVTLSIVTNRNPFHFTGLNFFNVSLVSVVAILQGAGSYFTFLISLR

>CstyOR63a

KEYDIICAKFKSFYTMSQMLKDILKSQEIVNDKILSTFYKISFMTGVNVKYKTGFKDPVKLVNALLVSVSLVGLCAQYCLVWHNRKESFVESADAICTANQAWISVFKLIYFIFVQHEFYDLLHTATDGSLLYELGIFDLAINCKQKLLQEIKDILEDSWLHIKHQLNFFTFSCMMACGFYMFSCIFANYYYTHIQPQNFTLQLPMPALFPMWHDYGMTLPYYPIQYIIAGIENYICGMCAVCFDGIFIIIVVHCSALFEVLHKLLEYATDEDIPQSERVKYLICCVRLHEQIYRYYLKINSMYRNPSLAQCLLSMLVLCVVMFMANVGLEEDITLFFKMLCFLGAAGFQIVIYCYNGQKIITQSEKTPSLWYISSWYNESKQFKYIINMMILRTNRTLYLQVSGFTTMSHMTLLSIVQTSGSYFLLLKNLSGMD

>CstyOR59a.2

MSTANTEILSKPSSINCREFFIINWKSWKLLGIIMPQRDARNRLLHIFWNIFINITVTCMFPIHLMLGIFLVKATKSELFENVSIFITSAGAALKLIIFASNVKRIIKMEQILQTLDERIQHIDDQLYYTQHIKRHLIYVQRMYIVVYLAVGFFASLAFIASGEQKLFYPGWMPFNFHQSWWHYSAALGYQLHGIFFQIMHNFANDSFSPKALCALSGHIQLLYKRVARIGYDPSLTSQENERELNRCVTHQKDLYELFDAIQEIISWPIFCQLFVSLANLCVAMVAVLFFVTDIFYRIYYVMYFFGMIMQLFPVCYYGSDFVILFEKLHYAVFSCNWTGQSKRFKRHMILFTERTLKMSMAMAGGMFPIHLTTFFATCKGAYSMFAVVITMK

>CstyOR59a.1

MTTTKVNVVQQHAEPNSCAFFKPHWLCWKILGITLHIDNSHRHRDIYMLYSIILNILVTICYPLHLALQLFRSDSMADNIKNLAVCVTCVACSTKFIIYSTKLSTIWQFEQILERLDARITDDVETNYFRRMRNRLRNVGIVFLSVYLPVGITAELSFMFREERSLLYPAWFPFNWIESTGWFYVANVYQIVGIFFLLLQNYADDTFPPMALCMLSGHIKILSIRVASIGYDQNSLHQNEEELNRCVEDQLNLYELYTTIENIISWPMFIQFCVTATNICVAMAALLFYVSAPLDILYYFVYFLAMPLQIFPACYYGSDFQCLFDQLHLAIFASNWTTQMLKYKKHMLLFTERSLKQNVALAGGMVRIHLDTFFTTCQGAYSLFAIIMRMK

>CstyOR49a

LKSVNKMSPKSANPLVAQKDFQDFCNLPNVLLSRIGYDFQNKPRPIWLVVLGKCYFLFASISHLYIFMYIAKATYSMIISADFELSLLLRLISGFNYAVFSTAKFITFHWHRKELKFIYETLKEIFPKTRKEKLIYRVRDNFWPKWILFIVYFYLGAVAFIATSPLMEGIVLYLGNVSKVGWRRAEFGYFKLYEIEYSFDHRSAFSYLITYSMELMHAHIMVTCNICADVWLLCLALQLCMHFDYVARTLEAYEPDEKEFVKDQEFIAELIKRHQILLNIGDGLHSVFGVLLLLVLMATAATLCCAGIYAITQDLGREFIEYAAFLPITIGQYYLICFYGQQLIIRSNSVADAAYNHSWYNGSKSYKKSIFIIIMRSQKEVELNALGLQPICLEAFKMLMGATYRVFALMKETML

>CstyOR47b

LKPFKLNNMTKVAIQKFTNYQQDEEDEEYGIKNASVDTILAAYKDLRKVLFQRQAPDKISLVYMRNYMRLLGILPRTWRGETLSYRIINKFIMIMLASFAVSITFDLYDAAQDVLQFGEDLVVLIGIYLIFLKLVLCAYHAQDIEQIIREFSKMHQYFGQLKHSSNIGKIRKLQRLFYMAELISFFLYISLGILFTAAICLPPILTPNGTPYRAKYPFEWQTYSDHPLRFTSIYLFQCIMTQFVLLAIVVIDNMGCHIFTQTTLNLQIFCMRIREMGSQPLGDRDLLEELHKAIQFHQYIIDLIAKINDVYYYNYAAQMAASTFMICLTAFEAMLAQDQPMLAIKFQIYMFSAFAQLFYWCCTGNMVYYNSLDVADAAYEIDRWYDQSKEFKYCLRFLIQRAQSPLVFRPKPMFCFNFESFSSILSTSYSYFALLRTMND

>CstyOR10a

KYILKLCAKPTRKMPLQFLSSNYPLHDYYFYVPNFCLRVMGFWPQAPNTQTKRLWASSNFLMLLIGVLTEMHAGLTALTYNLEKGLDTLCPAGTSAVTLLKMILISYYRQDLQYVLKKMQTMLYGESTNRQILQQHKKIIRQFSVLAARFNFAPFLTGFITNTAYILKPLIMAWIFWSKGKEIQWTTPFNMTMPSILLRAPLFPLAYIFTAYTGFLTIFMFAGCDAFYFEFCSHIAALLKMLQADIVSLFAVFENKLILTEEENKYVENRLKIIISRHNEIIDLTHFFRKRYAVITLAHFVSAALVIGASIFDLMTYTGFGRILYVAYTMAALCQLMVYCYGGSMVAENSVQISTVIFGCNWFICNPQVRRMILLIMIRSQRTLTMSVPFFSPSLATFASILQTSGSIIALASSFQ

>CstyOR2a

MVLTSNNPDTNLAFYYHWKVWHWVGIKAPQESNLQLYRVYAVLINSLVTFLFPLTLIVNVFFAQNTQQLCENLTITITDTIANLKFVNVYLVRGELERIKAILGKLDKRAKNTEEQKILKSAIRISQLSFLIFVRLYTVGTCLSILKVIFAAERCLLYPAWFGLNWFDNTFIYILVMTYQLFGLIVQALQNCANDSYPPAYLIILTAQMKALEVRVRAIGRAENGEERMCLTKEEYLRNLNEFNECIKDYKNILKLFTIIENIISKACLAQFVCSALVQCTVGLHFLYVVDAADYGAQILSIIFFVAVTLEVFIICYFGHCMSTQSWNLTYAFYSCGWLAQTPCFKKNLLITLMRTQRHSIIYAGSYIPVDLPTFVQLMKYAYSTFTLLIRFK

>CstyOrco

MQSNLQPTKYVGLVADLMPNIKLMKYSGLFMHAFTGGSPLLKKVYSSIHLVLILAQFIFILVNMALNADEVNELSGNTITALFFTHCVTKFIYLAVNQKNFYRTLNIWNQVNSHPLFAESDARYHSIALAKMRKLFFLVMLTTVASAVAWITITFFGESVKFAFDKETNSSITVEIPRLPIKSFYPWDASQGMFYTISFALQGYYLLFSMVHSNLCDVLFCSWLIFACEQLQHLKGIMKPLMELSASLDTYRPNSAALFRSLSANSKSELIINEEKEPPSDLDMTGIYSTKADWGAQFRAPTTLQTFNGVNGGNPNGLTKKQEMMVRSAIKYWVERHKHVVRLVAAIGDTYGAALLLHMLTSTIKLTLLAYQATKITGVNVYAFTVIGYLGYALAQVFHFCIFGNRLIEESSSVMEAAYSCHWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>BcucGR1

MAHRTVQPLLVHFGTLFNFCKMIGLYPHDLQAFRSVHTLQQSKRGALIVMATMFGVVVFYNLLIFFFSGEDHDLKASQSTLTFVIGIFLTYIGLGMMITDQWSALRNQAKVGEIYERIRAVDEQLMKENVIVDNSKTTKSIHFMIVLTVACELIILISTYFALVKYNEWKSILWLFSCFPTLYNSLDKIWFVSTLNGLKHRFTVINTALEDMVVSHERLKRWTENGSGGGEVFRRASIANVSIDPSLEYLYKELTHVEAVKAYNMARNKISPIAHSLNSFGDAMETPKKLQKFTLQPPTFNMVYESELSKDIEKVEEKLNNLCQLHDEICEIGKLLNELWSYPILVLMAYGFLIFTAQLYFLYCATQGQNIPSLFRSAKSAIITTIFLSYTAGKCIYLIYLSWKTSLESKRTGICLHKCGVVADNNLLYEIVNHLSLKLLNHSVDFSACGFFTLDMETLYGVSGGITSYLIILIQFNLAAQQAKDASNAVDANLYAQQFTTASGNTTALMDFFTTTFMPTSQTELY

>BcucGR2

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>BcucGR3

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>BcucGR4

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>BcucGR5

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>BcucGR6

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DIYVWMLALYTSLIESILNAVLFLFFYMLWQVQKRVWRLNAHLKELLHSLQKLHKSAAGMLPPDSSTLQQLSALAEEELSEITGVQARLIAMLLRLNSVYRWQVIVVLLTYLSCNIAYGYYWVVSFNSQISRPQNVPSIIASLGASVIVFIDINLLYWGADAITSACQDTGQILRRFQELPLMSAAFERQCEHFALQLKQQQMNINIAGMFSLNRQTSLALWAFSVRHIVILVQFDYEARKQSNRTNGVLDHINHMLQFGDDYLEL

>BcucGR7

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>BcucGR8

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>BcucGR9

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>BcucGR10

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>BcucGR11

MYYRKIFASFARYHLLALMYLLLLQPVPRLPWVTSICRLIWLAWLTIPGHTILYSLLTDSFEKLGHIVGSVLCTFKMLTNFVTYVESMCKAKHYQQLRRLEDEVDAMLRNHIDVTATFERKRWLRVFYCTLIQITYDILQLVVIFKDYMSPVFYYSMPMLLIERARYAQITFTIERQNERSLSLTALLRVLVKANRPKNKYTSDVWQPYASWEYENLNSVRLLQGRLCELYQCVGTCYGWSIIVLLFTTFFTAVANIFWCIEIVSSDFRLGQFMYDALTMLRLTTLAVVLLITADKARQHNIQISGLIFKLAKPIGNKTYNDLVSNFSLQCLQQRLFINVKGFFTLNLPLLGDSVREETELEEDDSNEIRKRNFDIEKEHCVGLITVYTKPDEHGDA

>BcucGR12

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>BcucGR13

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>BcucGR14

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>BcucGR15

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>BcucGR16

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>BcucGR17

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>BcucGR18

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>BcucGR19

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>BcucGR20

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>BcucGR21

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>CcapGR64e

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NFSHNVRKFGGILLFGAALEHSVYIMTAIFNNDFQIKQCNLTVDFWKNYYMRERLQIFSIFNYHAWLIPLVQWITISTTFAWNYVDIFLSMIFKCFAIRFRQMHWRIKRHVNKHMEDDFWHEVRNHFMVLVELLHLFDDGLSTLILVSCCNNLYFICVQIFHSFNNRDTFIKEFYFWSSLLFVLLRILTMMLSASAVHDEANKIMSTMYEIPTKFWCLELKRLNEIIVHDLVAFSGKSFFFLTRRLIFAMAGTIVVYELVLIDQVEDKDVVTDFCTSRNHCPALDYRKTALSDNRNECIMDLKSWSAKPKIGKRHKRIIGVLRVRNIFRRGTKLDYQHSGSFLEAIGPVLLLAQIFALMPVCGILSKSASELYFSWKCVRTLYAMIIIFCLGPASLCTIAFAFRESFNFDTIEAIVFYVSIFLIALAFFQLARKWPALMVTWESIESKLPPLKTEMQKAALAHRIKMITLVATVCSVVEHLLSMLGIIYYVNGCPAMPGHPIQSFLFSNWAQFFYFFEYTNLAGIFGKVLNVISTFAWNFNDIFVMAVSVALSARFRQLNEHMLRAAKQPTTEKFWMDNRINYRNMCKLCEATDDTISIITLLCFSNNLFFICGKILKSLQKKPSWSHSVYFWFSLGFLLMRTLMLSLFSAEINDESKRPLVVFRSVPSKFWCPELKRFSEEVTTDVVALSGMKFFHLTRGLVLSVAGSIVTYELVLLQFNKEDKVNDCYEG

>CcapGR22f

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>CcapGR28b

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>CcapGR33a

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>CcapGR22a

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>CcapGR22b

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>CcapGR22e

MIIVVLMAFLLAVYASLDDAFKTGDPLAELLNDLTIAISFSALLPMWWVNWSSRQRLQNLFNEFAAIEDDFFYPYRHLLADCTTYDNYLLWKGLASLLQNLSFLNSASTVETPSILLIIFMCLLTILTNVVLLVATHFYLVVLHTYRLIWALNRRLEAIAADNIMPRLCQRRHLLSVEIDTMASIYARLISLCERYTRMHQLHLLLVIGSVTACNIEVLFYVRLLWSGKIPERTAFNVFAVFQIFVVNLLDFWLTITICELALVESRKTSAILRGFSAKPKLTLNVERSLECFAIICSSTKLRFHICGLFDINHLTGLKVLSTMILYLIYLVQYYHDNL

>CcapGR64a

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ELCS

>CcapGR64f

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>CcapGR66a

MRTRSIVLSIINYMHTNTGIYPYDFHKFYYQGILQGSRTSCCVVIAVIFIIFVLFNITLFTFGDQHVVAKYNHLNLIINVVFTYMTPIAMFTDEITAMRNQKLLPKLFARIDYVDEDLGQLGITVNNKRVYRRIWLMIVLTFVCEFYMFFAMMWLIVDEFEWFNVLWIFTSIPTIYNSLDKIWFLGILLGLRDRFEAINTALDDITEEIEKNNLQKRKGLVYEQSVGVGELMLHTSLSVGSERISDIKLERLVCNAFGELVCERESNKSAAVIVSYENSSYNFAALQERFISLCQLHDSICRIAQQLNQLWAYPLLVLMAFGFVFITSLLYFAYCATWNQSIPLIFSPAKNIYTSFIVIGYIAGKCVSLMFFSWQTTQASRRAGICLHKCGVAADTNEVYEIVNHLSLKLLNHDINFSACGFFKLDMGTLYAVCGAITSYLIILIQFNMAGEQVRISKELAAANESTALTLAAENYTVMPLQTTMEVH

>CcapGR43a

MEITEPTLCIFYVNKFLALAPFSVRRNSKGALDIRRSVMFSVYSGSLCLIMVILTYQGLLFDANSQVPVRPSFRMKSATSKVVTALDVSVVVLACSAGVGCGLLGYRATRELNTRLRKIDDSMHSYSNFKRDRTMAILMMVLPLTAITSILGLDLSTWLRFAIGVRTPQDDTELNVQWYIPFYSLYFILTGLQINFANTAFGLGRRFRRLNVMLRNSFLKDNNQKDAPMKPPITTVKVVSQHPLALHQSLAKLTNDTLQGSGKQKVNLLRLLEENHESLGKCMRLVSNSHGFAVLFILVSCLLHLVATSYFLFLELLSKKDSGMVWLQVLWIIFHALRLILVVEPCHLATVESKKTIQIVCEIERKIHDPILAEEVKKFWQQLLVVDVEFSASGLCRVNRTLLTSFSSAICTYLVILIQF

QNTNG

>CcapGR10a

MSFWERHKHNIYKYGHIYATLYGLMVINYIPQRSTNTFAYRLANIYGHALSICLIVVLPIYFVRNISALTAAHDQRGQLLQLVNFANTLLKYITVVVTYIANFAHYAAIRAVTRERQQLEDDFDGSLRAATGYDEHPRRQFEAMLLFKFALINAMMVVQVGNILFQHFTGAHSVRVYIAIYTFVLWNYTENMADYFYFINSSALKFYQQLNQQLRQVVREAKLLHYFRLCGQRRGTVPHFCGLLCDRLDTLVQRYQQINRLYQDSLTMHQFQILGMVFITLISNLTNSFILFNLFVKHSGASASPAIVLNALHAIIFYVDTYIVALVSENISLEMQNINQTLRQFNQFSMLDVRLQQTLEALTLFVMNNKVEVRICGLFVLDRRLTYLTAATGLSYFITLVQFDLNLT

>CcapGR93a

MSSYSRSERFAYLTLVALYYYGRLLCVFDWKLEKSKMLVRPTKCTNRILLLIWRIFITMIFISVMPSMMAPFQRLSIDSFLAFFANLQVITVTLFSVISFLIQELSERKIFKIIEKIVKIYKRIYGKSHVRQILGRTFVFSVITKLLLSFLGLIYEVPLILEGDQSVKSLCGIYLWLGTIYTLDACFLGFLIIGQMYTAMAAHLGEMVQAMSDYESEEPLSTLSKHERMKRLCVHSESIDDSNNIYFVLYGLTKQFHHIFRWQLIYSIYYNFVIILMVMHSFIWQYIYAGYVDFLALFSSLFKLWNLAMLILAAHGVVEKSQLPDLLNLDLVCSDIDARWDESVEAFICQRKVENLEIKVLGFFHLNNEFILVIISAIMSYLFILIQFALTKQQ

>BcorGR64f

MKFAFKIGWKIGNVAADARLRVQQQHDARKNRRLWRRQCERGIRRLSQNGSNAAATYGPQKLNHKSTLIRRTCTEFVAQRELMQLQIDKPPKILAKSVKEDFQYDGSFHQAVGKVLLFAEFFAIMPVKGVTAAHPQQLSFSWTNIRTLYCLLFITTTTIDLGLTMNKVLHKPINFDSVEPLIFRLSIIVVCISAIVLARKWPALMLDWYEIECDLPEYLTQMEKGRLAYRIKMVTVVAMTLSLGEHLLNILSNIHYSKYCPQTEDPIENFFILTNQQLFMIFSYSVPLAFWGKLQNILCTFIWNYMDVFVMIVSIGLAAKFRQLNDNLFKFKGMRMPEMYWSTRRKQYRNLCELCTRIDGAISLITMISFSNNLYFICVQLLRSLNKMPSLAHVAYFYFSFFFLIGRTLAVSLYSASINDESRKPLRVLRCVPKESWCTEVKRFSEDISTDLVALSGMKFFYLTRKLVLSVAGTIVTYELVLIQFHQDSKLAECVSSIRTLSSPGNNTLH

>BcorGR63a

MFNSYNRRKKHDTVFLNVKPTFNSQGNGLRKYSTGLLDKEDNPFYDVNSSSGSRASVGTITTLNENFRANIFYNNIAPIQWFLHMLGVLPITRREPGKAKFRINSIAFGYSLAFFILLSVFVTYVAKNRISIVTSLSGPFEEAVIAYLFLVNILPLILIPILWWEARKIAKLWNDWDDFEILYYQISGHSMPLNLRRKTTMIAVVLPILSILSVVITHITMADFQIIQVIPYCILDNLSAMLGAWWFIICESLSMTANILGERFQRALRHIGPAAMVADYRALWLRLSKLTRDTGNATCYTFTFINLYLFFIITLSVYGLMSQLSEGFGIKDIGLAITAIWNVFLLFYICDKAHYASFNVRTNFQKKLLMVELNWMNSDAQTEINMFIRATEMNPSNINCGGFFDVNRNLFKGLLTTMVTYLVVLLQFQISIPTDTGRHMNVSVAELATDMMLESAEVELTTTSTTSTTTTTTTKMPPPARGRKG

>BcorGR5a

SQIFFVFDYSTWLAWFGKILNVLMTFGWSYMDVFLMIIGIGLSSLFEQVQRSLERVKGQVMPESYWTRTRLQYRLICDLIEQVDSAVSAITVLSFANNLYFVCIQLLKSMNTMPSVAHFVYFYASLGFLLARTLAVSLYLSEVNDRSREPLKIIKKVPKEGFHPEVDRLAHEIGMDTVALTGLKFFNITRGLVLTVAGTIVTYELV

>BcorGR28bc

MDEDTNGIEAQEVRATRPQRVSGLRRFFQAQQLYESVQPLFLITFWHGLTPFFIKSDGAGNKKLKESIFGYINTFLHITIYVACYLLTVMNDFETVAGYFFNSGVSRFGDTLQIVSGLIGVTIIYITAMLPKHRLKYSLRIVQDIDLMLHKVGVKIIYTKLLHYSYFSILLVFAVDTVYSCGNFMLLKSANLEPSTPLYIVFTLQHTVISIATMMYHGFVKMVEMRLTMLNKVLKKLAHQWDNSIVKPMPKQRSLQCLDSFSMYTIVTNNPCEIIQESMEIHHMICDAASTANKYFTYQLLTIISIAFLLIVFDAYYVLEILLGKSAHEGKFKTVEFVTFFSCQMILYVIAIVSIVEGSNRAIQKSEKTSGIVHSLLNKAKNAELKEKLQQFSLQLLHLKIHFTAAGLFNIDRTLYFTISGALTTYLIILLQFSNSNVPEPPFPSMEENDTIPIRSLVSNLTIGG

>BcorGR21a

MAYWAIATRKGQSPPMKITPVLNPNQREFLEDELLYREKLEILAENNTISTDLFVRKFEDIDDPVLLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPQKPGMPRTGYSWTSKQVFWAVCVFSMQTTIVVMVLRERVNTFLNDSDRRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQLKFLKVTGSPIVFPNLYPLTWSLCFFSWGVSIAINLSQYYLQPDFKLWYTFAYYPIIAMLNGFCSLWYINCTAFGTASRALSASLELTLMSDKPAKKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSLSEIMDHGATYKEVGLFVIVFYCMSLLYIICNEAHYATQSVGLDFQTKLLNVDLTAVDSATQKEVEMFLMAITKNPPIMNLDGYANINRELITSNISFMATYLVVLLQFKITEQRNYAMKQSRAELLA

>DmelGR5a

MRQLKGRNRCNRAVRHLKVQGKMWLKNLKSGLEQIRESQVRGTRKNFLHDGSFHEAVAPVLAVAQCFCLMPVCGISAPTYRGLSFNRRSWRFWYSSLYLCSTSVDLAFSIRRVAHSVLDVRSVEPIVFHVSILIASWQFLNLAQLWPGLMRHWAAVERRLPGYTCCLQRARPARRLKLVAFVLLVVSLMEHLLSIISVVYYDFCPRRSDPVESYLLGASAQLFEVFPYSNWLAWLGKIQNVLLTFGWSYMDIFLMMLGMGLSEMLARLNRSLEQQVRQPMPEAYWTWSRTLYRSIVELIREVDDAVSGIMLISFGSNLYFICLQLLKSINTMPSSAHAVYFYFSLLFLLSRSTAVLLFVSAINDQAREPLRLLRLVPLKGYHPEVFRFAAELASDQVALTGLKFFNVTRKLFLAMAGTVATYELVLIQFHEDKKTWDCSPFNLD

>DmelGR28b

MIRCGLDIFRGCRGRFRYWLSARDCYDSISLMVAIAFALGITPFLVRRNALGENSLEQSWYGFLNAIFRWLLLAYCYSYINLRNESLIGYFMRNHVSQISTRVHDVGGIIAAVFTFILPLLLRKYFLKSVKNMVQVDTQLERLRSPVNFNTVVGQVVLVILAVVLLDTVLLTTGLVCLAKMEVYASWQLTFIFVYELLAISITICMFCLMTRTVQRRITCLHKVLKNLAHQWDTRSLKAVNQKQRSLQCLDSFSMYTIVTKDPAEIIQESMEIHHLICEAAATANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSKRESKFKTVEFVTFFSCQMILYLIAIISIVEGSNRAIKKSEKTGGIVHSLLNKTKSAEVKEKLQQFSMQLMHLKINFTAAGLFNIDRTLYFTISGALTTYLIILLQFTSNSPNNGYGNGSSCCETFNNMTNHTL

>DmelGR66a

MAQAEDAVQPLLQQFQQLFFISKIAGILPQDLEKFRSRNLLEKSRNGMIYMLSTLILYVVLYNILIYSFGEEDRSLKASQSTLTFVIGLFLTYIGLIMMVSDQLTALRNQGRIGELYERIRLVDERLYKEGCVMDNSTIGRRIRIMLIMTVIFELSILVSTYVKLVDYSQWMSLLWIVSAIPTFINTLDKIWFAVSLYALKERFEAINATLEELVDTHEKHKLWLRGNQEVPPPLDSSQPPQYDSNLEYLYKELGGMDIGSIGKSSVSGSGKNKVAPVAHSMNSFGEAIDAASRKPPPPPLATNMVHESELGNAAKVEEKLNNLCQVHDEICEIGKALNELWSYPILSLMAYGFLIFTAQLYFLYCATQYQSIPSLFRSAKNPFITVIVLSYTSGKCVYLIYLSWKTSQASKRTGISLHKCGVVADDNLLYEIVNHLSLKLLNHSVDFSACGFFTLDMETLYGVSGGITSYLIILIQFNLAAQQAKEAIQTFNSLNDTAGLVGAATDMDNISSTLRDFVTTTMTPAV

>DmelGR21a

MSFWAVSRGLTPPSKVVPMLNPNQRQFLEDEVRYREKLKLMARGDAMEEVYVRKQETVDDPLELDKHDSFYQTTKSLLVLFQIMGVMPIHRNPPEKNLPRTGYSWGSKQVMWAIFIYSCQTTIVVLVLRERVKKFVTSPDKRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQYKFFKTTGSPIVFPNLYPLTWSLCVFSWLLSIAINLSQYFLQPDFRLWYTFAYYPIIAMLNCFCSLWYINCNAFGTASRALSDALQTTIRGEKPAQKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVIFFTTIIATYGSISEIIDHGATYKEVGLFVIVFYCMGLLYIICNEAHYASRKVGLDFQTKLLNINLTAVDAATQKEVEMLLVAINKNPPIMNLDGYANINRELITTNISFMATYLVVLLQFKITEQRRIGQQQA

>DmelGR43a

MEISQPSIGIFYISKVLALAPYATVRNSKGRVEIGRSWLFTVYSATLTVVMVFLTYRGLLFDANSEIPVRMKSATSKVVTALDVSVVVMAIVSGVYCGLFSLNDTLELNDRLNKIDNTLNAYNNFRRDRWRALGMAAVSLLAISILVGLDVGTWMRIAQDMNIAQSDTELNVHWYIPFYSLYFILTGLQVNIANTAYGLGRRFGRLNRMLSSSFLAENNATSAIKPQKVSTVKNVSVNRPAMPSALHASLTKLNGETLPSEAAAKNKGLLLKSLADSHESLGKCVHLLSNSFGIAVLFILVSCLLHLVATAYFLFLELLSKRDNGYLWVQMLWICFHFLRLLMVVEPCHLAARESRKTIQIVCEIERKVHEPILAEAVKKFWQQLLVVDADFSACGLCRVNRTILTSFASAIATYLVILIQFQRTNG

>DmelGR63a

MANYYRRKKGDAVFLNAKPLNSANAQAYLYGVRKYSIGLAERLDADYEAPPLDRKKSSDSTASNNPEFKPSVFYRNIDPINWFLRIIGVLPIVRHGPARAKFEMNSASFIYSVVFFVLLACYVGYVANNRIHIVRSLSGPFEEAVIAYLFLVNILPIMIIPILWYEARKIAKLFNDWDDFEVLYYQISGHSLPLKLRQKAVYIAIVLPILSVLSVVITHVTMSDLNINQVVPYCILDNLTAMLGAWWFLICEAMSITAHLLAERFQKALKHIGPAAMVADYRVLWLRLSKLTRDTGNALCYTFVFMSLYLFFIITLSIYGLMSQLSEGFGIKDIGLTITALWNIGLLFYICDEAHYASVNVRTNFQKKLLMVELNWMNSDAQTEINMFLRATEMNPSTINCGGFFDVNRTLFKGLLTTMVTYLVVLLQFQISIPTDKGDSEGANNITVVDFVMDSLDNDMSLMGASTLSTTTVGTTLPPPIMKLKGRKG

>DmelGR33a

MIQIMNWFSMVIGLIPLNRQQSETNFILDYAMMCIVPIFYVACYLLINLSHIIGLCLLDSCNSVCKLSSHLFMHLGAFLYLTITLLSLYRRKEFFQQFDARLNDIDAVIQKCQRVAEMDKVKVTAVKHSVAYHFTWLFLFCVFTFALYYDVRSLYLTFGNLAFIPFMVSSFPYLAGSIIQGEFIYHVSVISQRFEQINMLLEKINQEARHRHAPLTVFDIESEGKKERKTVTPITVMDGRTTTGFGNENKFAGEMKRQEGQQKNDDDDLDTSNDEDEDDFDYDNATIAENTGNTSEANLPDLFKLHDKILALSVITNGEFGPQCVPYMAACFVVSIFGIFLETKVNFIVGGKSRLLDYMTYLYVIWSFTTMMVAYIVLRLCCNANNHSKQSAMIVHEIMQKKPAFMLSNDLFYNKMKSFTLQFLHWEGFFQFNGVGLFALDYTFIFSTVSAATSYLIVLLQFDMTAILRNEGLMS

>DmelGR64f

MKILPKLERKLRRLKKRVTRTSLFRKLDLVHESARKKAFQESCETYKNQIENEYEIRNSLPKLSRSDKEAFLSDGSFHQAVGRVLLVAEFFAMMPVKGVTGKHPSDLSFSWRNIRTCFSLLFIASSLANFGLSLFKVLNNPISFNSIKPIIFRGSVLLVLIVALNLARQWPQLMMYWHTVEKDLPQYKTQLTKWKMGHTISMVMLLGMMLSFAEHILSMVSAINYASFCNRTADPIQNYFLRTNDEIFFVTSYSTTLALWGKFQNVFSTFIWNYMDLFVMIVSIGLASKFRQLNDDLRNFKGMNMAPSYWSERRIQYRNICILCDKMDDAISLITMVSFSNNLYFICVQLLRSLNTMPSVAHAVYFYFSLIFLIGRTLAVSLYSSSVHDESRLTLRYLRCVPKESWCPEVKRFTEEVISDEVALTGMKFFHLTRKLVLSVAGTIVTYELVLIQFHEDNDLWDCDQSYYS

>DmelGR64a

MKGPNLNFRKTPSKDNGVKQVESLARPETPPPKFVEDSNLEFNVLASEKLPNYTNLDLFHRAVFPFMFLAQCVAIMPLVGIRESNPRRVRFAYKSIPMFVTLIFMIATSILFLSMFTHLLKIGITAKNFVGLVFFGCVLSAYVVFIRLAKKWPAVVRIWTRTEIPFTKPPYEIPKRNLSRRVQLAALAIIGLSLGEHALYQVSAILSYTRRIQMCANITTVPSFNNYMQTNYDYVFQLLPYSPIIAVLILLINGACTFVWNYMDLFIMMISKGLSYRFEQITTRIRKLEHEEVCESVFIQIREHYVKMCELLEFVDSAMSSLILLSCVNNLYFVCYQLLNVFNKLRWPINYIYFWYSLLYLIGRTAFVFLTAADINEESKRGLGVLRRVSSRSWCVEVERLIFQMTTQTVALSGKKFYFLTRRLLFGMAGTIVTYELVLLQFDEPNRRKGLQPLCA

>DmelGR64e

MARTTGDPAKRRRCMSRIKFWRRSRVGSEVVEKDTKRFKLSLIKAWLLRIRQEDYKYSGSFQEAIKPVLIIAQIFALMPVRKVSSKFAEDLTFTWFSVRSYYALVTILFFGVSSGYMVAFVTSVSFNFDSVETLVFYLSIFLISLSFFQLARKWPEIAQSWQLVEAKLPPLKLPKERRSLAQHINMITIVATTCSLVEHIMSMLSMGYYVNSCPRWPDRPIDSFLYLSFSSVFYFVDYTRFLGIVGKVVNVLSTFAWNFNDIFVMAVSVALAARFRQLNDYMMREARLPTTVDYWMQCRINFRNLCKLCEEVDDAISTITLLCFSNNLYFICGKILKSMQAKPSIWHALYFWFSLVYLLGRTLILSLYSSSINDESKRPLVIFRLVPREYWCDELKRFSEEVQMDNVALTGMKFFRLTRGVVISVAGTIVTYELILLQFNGEEKVPGCFEN

>DmelGR64c

MQQSGQKGTRNTLQHAIGPVLVIAQFFGVLPVAGVWPSCRPERVRFRWISLSLLAALILFVFSIVDCALSSKVVFDHGLKIYTIGSLSFSVICIFCFGVFLLLSRRWPYIIRRTAECEQIFLEPEYDCSYGRGYSSRLRLWGVCMLVAALCEHSTYVGSALYNNHLAIVECKLDANFWQNYFQRERQQLFLIMHFTAWWIPFIEWTTLSMTFVWNFVDIFLILICRGMQMRFQQMHWRIRQHVRQQMPNEFWQRIRCDLLDLSDLLGIYDKELSGLIVLSCAHNMYFVCVQIYHSFQSKGNYADELYFWFCLSYVIIRVLNMMFAASSIPQEAKEISYTLYEIPTEFWCVELRRLNEIFLSDHFALSGKGYFLLTRRLIFAMAATLMVYELVLINQMAGSEVQKSFCEGGVGSSKSIFS

>DmelGR22e

MFRPSGSGYRQKWTGLTLKGALYGSWILGVFPFAYDSWTRTLRRSKWLIAYGFVLNAAFILLVVTNDTESETPLRMEVFHRNALAEQINGIHDIQSLSMVSIMLLRSFWKSGDIERTLNELEDLQHRYFRNYSLEECISFDRFVLYKGFSVVLELVSMLVLELGMSPNYSAQFFIGLGSLCLMLLAVLLGASHFHLAVVFVYRYVWIVNRELLKLVNKMAIGETVESERMDLLLYLYHRLLDLGQRLASIYDYQMVMVMVSFLIANVLGIYFFIIYSISLNKSLDFKILVFVQALVINMLDFWLNVEICELAERTGRQTSTILKLFNDIENIDEKLERSITDFALFCSHRRLRFHHCGLFYVNYEMGFRMAITSFLYLLFLIQFDYWNL

>DmelGR93a

MFSSSSAMTGKRAESWSRLLLLWLYRCARGLLVLSSSLDRDKLQLKATKQGSRNRFLHILWRCIVVMIYAGLWPMLTSAVIGKRLESYADVLALAQSMSVSILAVISFVIQARGENQFREVLNRYLALYQRICLTTRLRHLFPTKFVVFFLLKLFFTLCGCFHEIIPLFENSHFDDISQMVGTGFGIYMWLGTLCVLDACFLGFLVSGILYEHMANNIIAMLKRMEPIESQDERYRMTKYRRMQLLCDFADELDECAAIYSELYHVTNSFRRILQWQILFYIYLNFINICLMLYQYILHFLNDDEVVFVSIVMAFVKLANLVLLMMCADYTVRQSEVPKKLPLDIVCSDMDERWDKSVETFLGQLQTQRLEIKVLGFFHLNNEFILLILSAIISYLFILIQFGITGGFEASEDIKNRFD

>DmelGR22b

MFGSSREIRPYLARQMLKTTLYGSWLLGIFPFTLDSGKRIRQLRRSRCLTLYGLVLNYFLIFTLIRLAFEYRKHKLEAFKRNPVLEMINVVIGIINVLSALIVHFMNFWGSRKVGEICNELLILEYQDFEGLNGRNCPNFNCFVIQKCLTILGQLLSFFTLNFALPGLEFHICLVLLSCLMEFSLNLNIMHYHVGVLLIYRYVWLINEQLKDLVSQLKLNPETDFSRIHQFLSLYKRLLELNRKLVIAYEYQMTLFIIAQLSGNIVVIYFLIVYGLSMRTYSIFLVAFPNSLLINIWDFWLCIAACDLTEKAGDETAIILKIFSDLEHRDDKLEMSVNEFAWLCSHRKFRFQLCGLFSMNCRMGFKMIITTFLYLVYLVQFDYMNL

>DmelGR10a

MTSPDERKSFWERHEFKFYRYGHVYALIYGQVVIDYVPQRALKRGVKVLLIAYGHLFSMLLIVVLPGYFCYHFRTLTDTLDRRLQLLFYVSFTNTAIKYATVIVTYVANTVHFEAINQRCTMQRTHLEFEFKNAPQEPKRPFEFFMYFKFCLINLMMMIQVCGIFAQYGEVGKGSVSQVRVHFAIYAFVLWNYTENMADYCYFINGSVLKYYRQFNLQLGSLRDEMDGLRPGGMLLHHCCELSDRLEELRRRCREIHDLQRESFRMHQFQLIGLMLSTLINNLTNFYTLFHMLAKQSLEEVSYPVVVGSVYATGFYIDTYIVALINEHIKLELEAVALTMRRFAEPREMDERLTREIEHLSLELLNYQPPMLCGLLHLDRRLVYLIAVTAFSYFITLVQFDLYLRKKS

>DmelGR22f

MKMFQPRRGFSCHLAWFMLQTTLYASWLLGLFPFTFDSRRKQLKRSRWLLLYGFVLHSLAMCLAMSSHLASKQRRKYNAFERNPLLEKIYMQFQVTTFFTISVLLLMNVWKSNTVRKIANELLTLEGQVKDLLTLKNCPNFNCFVIKKHVAAIGQFVISIYFCLCQENSYPKILKILCCLPSVGLQLIIMHFHTEIILVYRYVWLVNETLEDSHHLSSSRIHALASLYDRLLKLSELVVACNDLQLILMLIIYLIGNTVQIFFLIVLGVSMNKRYIYLVASPQLIINFWDFWLNIVVCDLAGKCGDQTSKVLKLFTDLEHDDEELERSLNEFAWLCTHRKFRFQLCGLFSINHNMGFQMIITSFLYLVYLLQFDFMNL

>DmelGR28a

MAFKLWERFSQADNVFQALRPLTFISLLGLAPFRLNLNPRKEVQTSKFSFFAGIVHFLFFVLCFGISVKEGDSIIGYFFQTNITRFSDGTLRLTGILAMSTIFGFAMFKRQRLVSIIQNNIVVDEIFVRLGMKLDYRRILLSSFLISLGMLLFNVIYLCVSYSLLVSATISPSFVTFTTFALPHINISLMVFKFLCTTDLARSRFSMLNEILQDILDAHIEQLSALELSPMHSVVNHRRYSHRLRNLISTPMKRYSVTSVIRLNPEYAIKQVSNIHNLLCDICQTIEEYFTYPLLGIIAISFLFILFDDFYILEAILNPKRLDVFEADEFFAFFLMQLIWYIVIIVLIVEGSSRTILHSSYTAAIVHKILNITDDPELRDRLFRLSLQLSHRKVLFTAAGLFRLDRTLIFTITGAATCYLIILIQFRFTHHMDDTSSNSTNNLHSIHLGD

>DmelGR22d

MFRPRCGLRQKFVYVILKSILYSSWLLGIFPFKYEPKKRRLRRSMWLILFGVVISSSLLILMVKQSAEDREHGIMLDVFQRNALLYQISSLMGVVGVVSICTVHLRTLWRSKHLEEIYNGLMLLEAKYFCSNAVECPAFDGYVIQKGVVIVVGLLAPWMVHFGMPDSKLPVLNVLVVSMVKLGTLLLALHYHLGVVIIYRFVWLINRELLSLVCSLRGNHKGSSSRVRFLLKLYNKLVNLYSKLADCYDCQTVLMMAIFLAANIIVCFYMIVYRISLSKMSFFVMLIMFPLAIANNFMDFWLSMKVCDLLQKTGRQTSMILKLFNDIENMDKDLEISISDFALYCSHRRFKFLHCGLFHVNREMGFKMFVASVLYLLYLVQFDYMNL

>DmelGR59d

MADLLKLCLRIAYAYGRLTGVINFKIDLKTGQALVTRGATLISVSTHLLIFALLLYQTMRKSVVNVMWKYANSLHEYVFLVIAGFRVVCVFLELVSRWSQRRTFVRLFNSFRRLYQRNPDIIQYCRRSIVSKFFCVTMTETLHIIVTLAMMRNRLSIALALRIWAVLSLTAIINVIITQYYVATACVRGRYALLNKDLQAIVTESQSLVPNGGGVFVTKCCYLADRLERIAKSQSDLQELVENLSTAYEGEVVCLVITYYLNMLGTSYLLFSISKYGNFGNNLLVIITLCGIVYFVFYVVDCWINAFNVFYLLDAHDKMVKLLNKRTLFQPGLDHRLEMVFENFALNLVRNPLKLHMYGLFEFGRGTSFAVFNSLLTHSLLLIQYDVQNF

>DmelGR59e

MDSSYWENLLLTINRFLGVYPSGRVGVLRWLHTLWSLFLLMYIWTGSIVKCLEFTVEIPTIEKLLYLMEFPGNMATIAILVYYAVLNRPLAHGAELQIERIITGLKGKAKRLVYKRHGQRTLHLMATTLVFHGLCVLVDVVNYDFEFWTTWSSNSVYNLPGLMMSLGVLQYAQPVHFLWLVMDQMRMCLKELKLLQRPPQGSTKLDACYESAFAVLVDAGGGSALMIEEMRYTCNLIEQVHSQFLLRFGLYLVLNLLNSLVSICVELYLIFNFFETPLWEESVLLVYRLLWLAMHGGRIWFILSVNEQILEQKCNLCQLLNELEVCSSRLQRTINRFLLQLQRSIDQPLEACGIVTLDTRSLGGFIGVLMAIVIFLIQIGLGNKSLMGVALNRSNWVYV

>DmelGR22a

MSQPKRIHRICKGLARFTIRATLYGSWVLGLFPFTFDSRKRRLNRSKWLLAYGLVLNLTLLVLSMLPSTDDHNSVKVEVFQRNPLVKQVEELVEVISLITTLVTHLRTFSRSSELVEILNELLVLDKNHFSKLMLSECHTFNRYVIEKGLVIILEIGSSLVLYFGIPNSKIVVYEAVCIYIVQLEVLMVVMHFHLAVIYIYRYLWIINGQLLDMASRLRRGDSVDPDRIQLLLWLYSRLLDLNHRLTAIYDIQVTLFMATLFSVNIIVGHVLVICWINITRFSLLVIFLLFPQALIINFWDLWQGIAFCDLAESTGKKTSMILKLFNDMENMDQETERRVTEFTLFCSHRRLKVCHLGLLDINYEMGFRMIITNILYVVFLVQFDYMNLKFKTD

>BdorGR63a

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>BdorGR64e

MPVCGILSKTASKVYFSWKSVRTCYAMLVIFCLGPASLCTIAFAFRERFNFDTVEAIVFYVSIFLIAMAFFQLARKWPALMVKWESIESKLPPLKTEMQRAALAHRIKMITLVATMCSMVEHLLSMLGIIYYVNACPTMPGHPIRSFLYTNWSQYFYFFDYTDWAGIFGKVLNVISTFAWNFNDIFVMAVSVALSARFRQLNEHMLRVAKRPTSEKFWIENRINYRNLCKLCEATDDTISLITLLCFSNNLFFICGKILKSLQKKPSFSHTMYFWFSLGFLLMRTLMLSLYSAEINDESKRPLVVFRSVPSVSWCRELKRFSEEVTTDVVALSGMKFFHLTRGLVLTVAGSIVTYELVLLQFNKEGKVNDCYEG

>BdorGR22b

MLLGLLPFKCNKEKRTFRSSRVALSYNVVSNTLLFAWVVKNWPDMSNYELFVAKPLLYVVENAVSYLNCVGMILIFCSTWAGKNRLLRLFNEIATVRQLCDSKAFLRDFDASMMEKRIILKFCSMFLQNLLFFSSTFYWANRMDVNYALVLMLTIILLNEIFLISNQFYHNTLSINHSILAVNHRLRCLNTRKQLLAAGEINEIFGIYIRLIRLIAHTTKAYEQQLLVILSVRLSVVVQCLFSTCMQFGGRGLQVNKLELLYYLHIIMLTSLDYWLIMAVCESVWRAQQQTEVELKHFNASRSLSVSMARDLNTFSIFCSIHKFRFPLCGLFEINFATARNLCTSVVTALIWLVQYDFATSM

>BdorGR22d

MHTAHAARRKFANFIHCYIFKISMLLGLLPFKYSKKKRTFRSSRVALSYSVVSNTLLFAWVVKNWPDMSNYELFVAKPLLFIVQNAVSYLNCVGMILIFSSTWAGRKRLLRLFNETVTVRQLCDSKAFLRDFDASMMEKRIILKFCSMFLQNLLFFSSTFYWANRMDGNYFLVLMMSIILLNEIFLISNQFYHNTLSVNHSILAVNHRLRCLNTRKQLLAAGEINEIFGIYIRLIRLIAHTTKAYEQQLLVILSVRLSVVVQCLFSTCMQFGGRGLQVNKLELLISLHIIMLTSLDYWLIMAVCESVWRAQQQTEVELKHFNPFRTLSVSMARDLNTFSIFCSIHKFRFPLCGLFEINFATARNLCTSVVTALIWLVQYDFATNM

>BdorGR21a

MAYWAIATRKGQSPPMKITPVLNPNQREFLEDELLYREKLEILAENNTISTDLFVRKFEDIDDPVLLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPQKPGMPRTGYSWTSKQVFWAVCVFSMQTTIVVMVLRERVNTFLNDSDRRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQLKFLKVTGSPIVFPNLYPLTWSLCFFSWGVSIAINLSQYYLQPDFKLWYTFAYYPIIAMLNGFCSLWYINCTAFGTASRALSASLELTLMSDKPAKKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSLSEIMDHGATYKEVGLFVIVFYCMSLLYIICNEAHYATQSVGLDFQTKLLNVDLTAVDSATQKEVEMFLMAITKNPPIMNLDGYANINRELITSNISFMATYLVVLLQFKITEQRNYSLKQSRAELLA

>BdorGR64f

MKFAFKIGWKIGNVAADARLRVQQQHDARKNRRLWRRQCERGIRRLSQNGSDAAATYGPQKPNHKSTLIRRTCTEFVAQRELMQLQIDKPPKILAKSVKEDFQHDGSFHQAVGKVLLFAEFFAIMPVKGVTAAHPGQLSFSWTNIRTLYCLLFITTTTIDLGLTMNKVLHKPINFDSVEPLIFRLSIIVVCISAIVLARKWPALMLDWYEIECDLPEYLTQMEKGRLAYRIKMVTVVAMTLSLGEHLLNILSNIHYSKYCPQSEDPIENFFILTNQHLFMIFSYSVPLAIWGKVQNILCTFIWNYMDVFVMIVSIGLAAKFRQLNDNLFKFKGMRMPEMYWSTRRKQYRNLCELCTRIDGAISLITMISFSNNLYFICVQLLRSLNKMPSLAHVAYFYFSFFFLIGRTLAVSLYSASINDESRKPLRVLRCVPKESWCTEVKRFSEDISTDLVALSGMKFFYLTRKLVLSVAGTIVTYELVLIQFHQDSK

LAECVSSIRTLSSPGNNTLH

>BdorGR64a

MLSRNKLREILSKHQQAFEGSKILPSKSANEKIKNISLGKPIEKIFLENIEDSDVMKPVGMTGRRTPIEYFTYKEDDFHYKKPSEHTDYSRLDIFHRAVSPILIIGQCFSLMPVQGVGQPNPRHVRFSFKSLRVLITLIFLVASSALNLAMMKHLARIGVNAKNLVGVVFFTCVQSSTILFLSLAQRWPRLIRFWTRTEMIFIRKPYETPKRDLSTRVRRAAVTIIFLSAVEHLLYLASAVVSQYRRANFCATLQNSTVHFTFEDYTYKNYDYVYELFPNTTLVGSLILVVNFVCTFVWNYMDLFIMMVGKGIAYRFEQMKMRINNLLNKEVPESIFMEIRDHYVKLLELLEYVDDDLSGIILLSCANNLYFVCYQLLNIFNKLRWPINYVYFWFSLLFLIGRTAFVFLTAASINDEAKDALAVLRRVSAKTWCVEVERLIFQMATTTVALSGKKFYFLTRRLLFGMAGTIVTYELVLLQFDEPNRSKGLPHLCA

>BdorGR66a

MAHQTVQPILVHFGTLFTFCKLLGLYPHDLQAFRGIHTLQSSKIGTAIVVVTMLAVVVLYNLLIYFFSSEDHDLKASQSTLTFVIGIFLTYIGLGMMITDQLSALRNQSKTGELYERIRAVDEQLLKENVYVDISKTAKNILLMIVLTVVSELIILISTYITLVDLTDWKSILWLFSCFPTLYNSLDKIWFANTLSALKQRFFVINTALEDMVESHERLKRWTENGGDGGGQIFRRPSIANVSIDPSLEYLYKELTHMEAVKAYNMARNKISPIAHSLNSFGDALETPKKPYKYTSQPPTFNMVYESELNKDIEKVEEKLNNLCQLHDEICEIGKLVNELWSYPILVLMAYGFLIFTAQLYFLYCATQGQAIPSLFRSAKSATITTIFLSYTAGKCIYLIYLSWKTSLESKRTGICLHKCGVVADNNLLYEIVNHLSLKLLNHSVDFSACGFFTLDMETLYGVSGGITSYLIILIQFNLAAQQAKDASNAAETNYNTMLTTEAGNTTALMDYFTTTFMPYAQTDLY

>BdorGR43a

MEINESSLSVFYLSKLLALAPISIQQNAKGVIEIKRSIMFSIYAIALGLIMVILCYEGLLFDANSKVPLRMNSSTSRVVTAMDVTVVVFSSVAGIGCGIFSVTPSRELNLRLRKFDASLHSFSNFKRDRITTRIMAIIPMTISGALIAFDIWTWVLQIEISPNMSSTANVKWYIPFYLLYFVMIGFHILFANTAIGLGRRFRRLNAMLKCQYLSESKPYSLVRAQINNIKIIPDKAMSLHESIDRLNTESLPKDGLGKTRVMLLRSLAENHESLGKCVQIFSSTFGIAVLCILVSCLLHLVATAYFLFLALLNPNVTGYAWGQVLWIFLHILRLLLVVEPCHMATLESKKTIQIVCEIERKMHEPVLVEEIKKFWQQLLVIDVEFSALGLCRINRNILTALSSAIATYLVILIQFQKASG

>BdorGR93a

MSKYNRTELFAYRLLRVLYKYGHFLSVFGWKLQKQKMELRQGKRWIRIIRIIWRIWLSLIFASLMPKMMAPYVRYIGNSFLMFFADVQVTTVTLFSILSFVIHECSERKIFQIINKLVNMYERISTKSGFEQILGRTFVISIILKFLLSAFGLMYEIPLLVEGTGLMSFLAGIYLWLSTIYILDCCFVGFMVIRQMYIAMATYLERMLERMSRIESEEPQQRLSKHQRMKELCLCSESIDDSNNIYSVLYELTKEFHHIFRWQVLYYIYYNFVIILMLMHRFISRYIETGAVDLMAFFSTVFKFCNLAFLIFSTDGVVLKSQLTDLLNLDLVCSDIDARWDESVETFICQRKVENLEIKVLGFFHLNNEFILVILSAIMSYLFILIQFGLTNSG

>BdorGR22e-like

MCSETTLRVLRQTRQIVADTCISTQFLLSTVHGLFPFKYDSGTRRLTSTKLLNCYWPLVNIAIVLITPYIYFLKPQVNQVRFIYDKPLNKLLAHVHYMLGVCILLVIIIANSYHRKELFKLHNDLVQMQRRQQRWQQKWTVKSNSQIEAFYYNAIIAKSLMSLLQVASNVGGKLTMNTNPSLEYFIYVFLVLVLKNVTLLTVANFHFALLNIYRQLQQVNWNFQEVLRLWSVRAPAVSNIPLEHVTDIAFAAFAGEAKQPNGSRNFGVSAIADLCGQYVQICRLARRVCKHYEWQVLLFLIIILFGNVMSTFYFLVYLGGKVVPKELFSPTLFLQFYLINILDLYCYMLICERSMASSKETGFLLKELTQLKSLPKGLQHEFEMLSIFMAGETVRFRFCGLLEWNFRTGASYMTATILYLIVLVQFDYNNL

>BlatGR64f

RKWPALMLDWYEIECDLPEYLTQMEKGRLAYRINMVTVVAMTLSLAEHLLNILSNIHYSNYCPQTEDPIENYFILTNQHLFMIFSYSVPLAIWGKVQNILCTFIWNYMDVFVMIVSIGLAAKFRQLNDNLFKFKGMRMPEMYWSTRRKQYRNLCELCTRIDGAISLITMISFSNNLYFICVQLLRSLNKMPSLAHVAYFYFSFFFLIGRTLAVSLYSASINDESRKPLRVLRCVPKESWCTEVKRFSEDISTDLVALSGMKFFYLTRKLVLSVAGTIVTYELVLIQFHQDSKIAECVSSIRTLSSSG

>BlatGR64e

LSKTAAKVYFSWKSVRTCYAMLVIFCLGPASLCTIAFAFRERFNFDTVEAIVFYVSIFLIAMAFFQLARKWPALMVKWESIESKLPPLKTEMQRAALAHRIKMITLVATMCSMVEHLLSMLGIIYYVNACPTMPGHPIRSFLYTNWSQYFYFFDYTDWAGIFGKVLNVISTFAWNFNDIFVMAVSVALSARFRQLNEHMLRVAKRPTSEKFWIENRINYRNLCKLCEATDDTISIITLLCFSNNLFFICGKILKSLQKKPSFSHTMYFWFSLGFLLMRTLMLSLYSAEINEESKRPLVVFRSVPSVSWCRELKRFSEEVTTDVVALSGMKFFHLTRGLVLTVAGSIVTYELVLLQFNKEDKVNDCYEG

>BlatGR22d

MHTARRKFANFIHCYVFKISMLLGLLPFKYNKEKRTFRSSRMALSYSVVINTLLFAWVVKNWPDMSNYELFVAKPLFFIVQNAVNYMNFVGMIIIFCSTWAGRKRLLRLFNEIVTVRHLCDSKAFLRDFDASTLENRIILKFCSMFLQNLLFFSSTLYFAYRMDESYFWVLMLSIILLNEIFLISNQFYHNTFSINHLILAVNHRLRCLNTRKQLLAAGKINEIFGIYIRLIRLIAHTTKAYEQQLLVIISVRLSIVVHCLFSACMQFGSKGLQVNILELLYYLHVIMLTSLDYWLLMAVCESVWRAQQQTEVELKHFNTFRTLSVDLARDLNTFSIFCXIHKFRFPLCGLFEINFATARNLCTSVVTVLIWLVQYDFATILFKDDIPIIAIPSSIPK

>BlatGR28b

MDGDTNGIEAQEVRATRPQRVSGLRRFFQAQQLYESVQPLFVITFWHGLTPFFIKNDGAGNKKLKESIFGYMNTFLHITIYVACYVLTLMNDFETVAGYFFNTGVSRFGDTLQVLSGLIGVTIIYITAMLPKHRLEYSLRTVQNIDLMLHKVGVKIIYTKLLHYSYFSILLVFAVDTVYSCGNFMLLKSANLEPSTPLYIVFTLQHTVISIATAMYHGFVKMLEMRLTMLNKVLKNLAHQWDNGIVKPLPKQHSLQCLDSFSMYTIVTNNPCEIIQESMEIHHMICDAASTANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSAHESKFKTVEFVTFFSCQMILYLIAIISIVEGSNRAIKKSEKTGGIVHSLLNKAKNAELKEKLQQFSLQLLHLKIHFTAAGLFNIDRTLYFTISGALTTYLIILLQFTNSNPPEHPFVPMEENDTMPIRSLVSNLTIGG

>BlatGR63a

MFNSYNRRKKHDTVFLNVKPTFNSQGNGLRKYSTGLLDKEDNPFYDVNSSSGSRASVGTITTLNENFRANIFYNNIAPIQWFLHMLGVLPITRREPGKAKFRINSIAFGYSFAFFILLSVFVTYVAKNRISIVTSLSGPFEEAVIAYLFLVNILPLILIPILWWEARKIAKLWNDWDDFEILYYQISGHSMPLNLRRKTTMIAVILPILSIVSVVITHITMADFQIIQVIPYCILDNLSAMLGAWWFIICESLSMTANILGERFQRALRHIGPAAMVADYRALWLRLSKLTRDTGNATCYTFTFINLYLFFIITLSVYGLMSQLSEGFGIKDIGLAITAIWNVFLLFYICDKAHYASFNVRTNFQKKLLMVELNWMNSDAQTEINMFIRATEMNPSNINCGGFFDVNRNLFKGLLTTMVTYLVVLLQFQISIPTDTGRHMNVSVAELATDMMLESAEVELTTTSTTSTTTTTTTKMPPPARGKKG

>BlatGR28b-1

ARVKMLVVRRTFANLFGAHEYYKSIEPLLFFTHTLGITSYVVVSNERGFKSLTNSRYSYVVIFLTLSLFAYCCVYIVYCKVTYIGHFVNTDITNVGEMAIVLASGLEAVIVLITNAIRRRRLLWVLENFPKIDKSFERIGIRWNYRNLLKNVIWRLIFTSFIYSINCIIYISCWIRLQALPSWQLIFIVLCQQIGICFSLCLFSHLMMSTKLRIKALNKVLKNLAHQWDNGIVKPLPKQHSLQCLDSFSMYTIVTNNPCDIIQESMEIHHMICDAASTANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSAHESKFKTVEFVTFFSCQMILYLIAIISIVEGSNRAIKKSEKTGGIVHSLLNKAKNAELKEKLQQFSLQLLHLKIHFTAAGLFNIDRTLYFTISGALTTYLIILLQFTNSNPPEHPFVPMEENDTMPIRSLGSNLTIGG

>BlatGR21a-1

MAYWAIATRKGQSPPMKITPVLNPNQREFLEDELLYREKLEILAENNTISTDLFVRKFEDIDDPVLLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPQKPGMPRTGYSWTSKQVFWAVCVFSMQTTIVVMVLRERVNTFLNDSDRRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQLKFLKVTGSPIVFPNLYPLTWSLCFFSWGVSIAINLSQYYLQPDFKLWYTFAYYPIIAMLNGFCSLWYINCTAFGTASRALSASLELTLMSDKPAKKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSLSEIMDHGATYKEVGLFVIVFYCMSLLYIICNEAHYATQSVGLDFQTKLLNVDLTAVDSATQKEVEMFLMAITKNPPIMNLDGYANINRELITSNISFMATYLVVLLQFKITEQRNYSLKQSRPELLA

>BlatGR39b

MEECLRLWLRGCAVFGIYVIPIQEHYTAPHWQRLSRKRIKRQLAWTEERATRLTYLLQRLYLATLAVIVCVLYLHGLYAREIEHGFVLTWLVATLVYTSQVLTHLSIFIAALWKREQHESFLQLLQQIDVSLKLRLKCNTRQSALLHSLRLLLFSLILLSVVGICVFTVVSVWLNDIGYYWHAAWTIVTLRVRILQLLIYARILRHYLDCVCVKLRQVVACRTSSASQLLDINYERFESLEFLLAIKENYTLIFKAVQLFNDFAGWSLFGIISSYMLDFTCHVYWSLLGLDGYGSPYTYLVGMPAALPFSVIVCHLCYVCGNCKQLGAIITDLVSKLATVRSTPAMKRYSCVVYQFSTQLQLQRIEMTAQHFFVLDLHLIMSISTAIATNLVIMIQFLKSENSESSGA

>BlatGR93a

MPKYYRTELFAYRLIGVLYKYGHFLSVFGWKLQKHKMELRQGKRWIRIIRIIWRISLSLNFAWLIPKMMAPYIKHVDNSFLIYCADVQVITVTLFSIMPFVINECSERKIFQIINKLVNMYERISIKSRIEQILGRTFVVSVILKILLSAFGLLYEIPLLVEGTELMSFLAGIYLWLSTIYILDCCFVGFMVIRQMYIAMATHLERMLERMSQIESEEPQQRLSKHQRMKELCVCSERYIEMGYVDLMAFFSTVFKFCNLAFLIFSTDDVVQKSQLTDLLNLDLICSDIDARWDESVETFICQRKVENLEIKVLGFFHLNNEFILVILSAIMSYLFILIQFGLTNKHTVVSMT

>BlatGR66a

MQNGAAAPAELDVVLGIYPYDLQKFYYQGILQPSRLGSCVVVTIMCITFMLFNLSLFNFSDEDVITKNNHLSIIVTIVFTYITPATMFTDQIMALRNQRRLPELFERIDCVDEDLRQLGITVDNRRVQRGIWLMITFTFFCEFFIFFSSIWFLVDELRWTTVLWIFISLPTFYNTLDKIWFLGILLGLRDRFDAINAELERIAEELERRQNQQLKGEPYQEHDLVLQTSLPLRTEQIDIKLERLVRNAFGESLLEPVPIRNYMLNISHESSLYTFKALQERFISLCQLHDSTCRIAKLLNELWSYPILILMAFGFVVFTSQLYFVYCATQPDRTIPLIFRCAKEPSISTVFLTYIGGKCVSLMLYSWKTSQAARRAGICLHKCGVAADTNEVYEIVNHLSLKLLNHAINFSACGFFTLDMGTLYAVCGAITSYLIILIQFDMAAQQVRISKELAAANETTAVALVTENYTIGMMESTTPCD

>BlatGR43a

MEITEPTLCVYYVSKALALAPFSVRRNSKGVLDIRRSVMFSVYSASLCLLMVFLTYQGLLFDANSQVPVRMKSATSKVVTALDVSVVVFACSAGVGCGLWGYRATLELNTRLRKVDDSLHSFSNFKRDRILAILLLGLPLIAITSILGLDLSTWLRFAIEMRTPTDDTELNVQWYIPFYSLYFILTGLQINFANTAFGLGRRFRRLNVMLRNSFLKDVDNSQKYVPLKPLITTVKVVSQHPLALHQSLSKLTHVPTQDSAKNKVALLRLLEENHESLGKCMRLVSNSHGVAVLFILVSCLLHLVATSYFLFLELLSKKDSGMVWLQVLWIIFHSLRLILVVEPCHLATVESKKTIQIVCEIERKIHDPILTEEVKKFWQQLLVVDVEFSASGLCRVNRTLLTSFSSAICTYLVILIQFQN

TNG

>BlatGR5a

MHKSYLNYTFLKQIVRYLKAKEITELEKDDGRKYSVKRFLTGQPQQRRKRLQIINGILXGPRYLSKRQTTIAVDEKQELTKELYEQSKHPKVRGIRRGTRADFIHNGSFHEAVGPLLVIAQCFCLMPVRGILAASPKGLSFRWKSFRTWYCILYTLVTIADTGLTVNMVVKGVLDVRNIEPLIFHANILLASIGFLRLAAKWPQLMRKWQRVERHMPPFQSWREREALAVRVHKVTFVLITLSLTEHLLSTISAIHFANYCPSRVDPIESYFMTVVSQIFFIFDYSTWLAWFGKILNVLMTFGWSYMDVFLMIIGIGLSSLFEQVQXSLERVKGQVMPESYWTRTRLQYRLICDLIEKVDSAISAITMLSFANNLYFVCIQLLKSMNTMPSVAHFVYFYASLCFLMARTLAVSLYLSEVNDRSREPLKIIKKVPKEGFHPEVDRMAYEIGMDTVALTGLQFFNITRGLVLTVAGTIVTYELVLIQFHEDQ

NLWNCN

>AludGR63a

MFNSYNRRKKHDTVFLNVKPTFNGQNSGLRKYSTGLLDKEDIPYYNTNSSQGSRASVGTITTLNENFRPNVFYNNIAPIQWFLHIIGVLPITRRAAGKAKFRLNSIAFGYSLVFFVLLAIYVFYVAKNRIKIVTSLSGPFEEAVIAYLFLVNILPLLMVPILWWEARKIAKLWNDWDEFEILYYQISGHSVPLNLFRKTTMIAVVLPVLSILSVVITHITMADFQFIQVIPYCILDNLTAMLGAWWFIICESLSMTANILGERFQRALRHIGPAAMVADYRALWLRLSKLTRDIGNATCYTFTFLNLYLFFIITLSVYGLMSQLSEGFGIKDIGLAITAIWNVFLLFYICDKAHYASFNVRTNFQKKLLMVELNWMNSDAQTEINMFIRATEMNPSNINCGGFFDVNRNLFKGLLTTMVTYLVVLLQFQISIPSDSGKQMNVSVAELVTDMFVETTELTSTSTTPTIKTTTTKMPPSARGRKG

>AludGR64f

MKFALRIGWKIGNVTADARLRVQQQQQARKKQRLMRRQYERGTIRRLSQTVTNEPAACGSLKLKHNRKSALIKRTCTEFVAQMELLHLQIDRPPKVLAKSVKENFQHDGSFHQAVGKVLLFAEFFAVMPVKGVTASHPKQLSFSWTNIRTLYCLLFIIMTVIDLGFSINKLLHKPINFNSVEPLIFRSSIIVVCISAISLARKWPALMLYWYEIESDLPEYLTQMEKGRLAYKIKMVTIVAMMLSLGEHLMNIISSIHYSNYCSQTNDPIEDFFLLTNQQLFLVFPYTIYLGIYGKIENILCTFIWNYMDCFVMLISLGLAAKFKQLNDNLFKFKGMQMPECFWSTRRKQYRNLCELCLRIDGAISLITMISFSNNLYFICVQLLRSLNKMPSFVHAAYFYFSLSFLIGRTLAVSLYTASIHDESRKPLRVLRCVPKESWCTEVKRFSEEINSDLVALSGMKFFYLTRKLVLSVAGTIVTYELVLIQFHQDSQLGDCASIVRPLPSSSNGSAH

>AludGR66a

MAQQTVKPILLHFGQLFLLCKLLGLYPHNLEAFRHKHALHSSKIGTAVVIATMFAINIFYNLLIYSFSEEDHALKASQSTLTFVIGIFLTYIGLVMMMTDQWSAIRNQSKIGELYERIRAVDEQLLRENITVDNSAISKRILIMIGLTVACELTILVSTYVTLVDYTEWISILWFFSGFPTFYNSLDKIWFAITLNALRQRFFRINTALDEMVAFYEKRGFRCGKDTTSLKTSITHEDFGQSLEYLYKELTHMEAIKRPSYGKNKISPVAHSLNSFGEAIEMPKNQQKLSSQPPTFNMIYETELNNEIDKVEEKLNNLCQLHDEICEIGKMLNELWSYPILVLMAYGFLIFTAQLYFLYCATQRQSIPSLFRSAKNAIITTIYLSYTAGKCIYLIYLSWKTALESKRTGICLHKCGVAADNNLLYEIVNHLSLKLLNHSVDFSACGFFTLDMETLYGVSGGITSYLIILIQFNLAAQQAKDAVHNDDETTSLLPTTGEGNATTILDLFTTAFMPTTHSAIN

>AludGR21a

MAYWAIATRKCESPPMKITPVLNPNQREFLEDELLYREKLEILAEHNTISTDLFVRKFEDIDDPILLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPQKPQMPRTGYSWTSKQVFWAIFVFSVQTTVVVMVLRERVNTFLNDSDRRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQLKFLKVTGSPIVFPNLYPLTWALCFFSWGVSIAINLSQYYLQPDFKLWYTFAYYPIIAMLNGFCSLWYINCTAFGTASRALSASLEMTLMSDKPAKKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSLSEIMDHGATYKEVGLFVIVFYCMSLLYIICNEAHYATQSVGLDFQTKLLNVDLTVVDSATQKEVEMFLMAITKNPPIMNLDGYANINRELITSNVSFMATYLVVLLQFKITEQRNYTLREG

>AludGR28b

MDEDTNSIEAQEACATHPQRVSGLRRFFHAQQLYESVQPLFVVTFWHGLTPFFIKSDGAGNKKLKESICGYLNTLIHITVYVACYVLTLLNDFETVASYFFHSRISRFGDTMQIVSGLIGITVIYFTAILPKHLLQHSLRTMQDMDVLLRSVGVQILYSKVLRYCYFSLLVVFAVDTVYSCGNFILLKSANLEPSTPLYIVFTLQHTVISIATAMFQGIVKLLEMRLVMLNKVLKNLAHQWDNNGVVKPIPKQRSLQCLDSFSMYTIVTKDPCEIIQESMEIHHMICDAASTANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSKRESKFKTVEFVTFFSCQMVLYLIAIISIVEGSNRAIKKSEKTGGIVHSLLNKAKSAEVKEKLQQFSMQLLHLKINFTAAGLFNIDRTLYFTISGALTTYLIILLQFTSSNMPDQQSPQEGQNTTTLMNILQNSTAGP

>AludGR33a

MNLLLQTFSLIFGLVPFNSNELDSNVAVDYSLVVIMPLLYIFCYYYVNFRGINAYQLTDCNSICHLSSILFMHVGCFLYLTIYLLTLLRRKAFYVEFGKRLQEIDELNVACIKVADTSNKLIVPQKKRLFYITWIFVLTAFGFAIFYDVNKVFKYYGPYCLILNMVITFPYVAASTVQGIFISYVSVISERFRILNILFNKINQESDRKNSPLSVLDIENEYRKYNHRGPAVISNLAKSKTKKEIQTGEKSVNSSNNYGSDSAEEDSGDDMYNSGAYDEPRLNDGKTSETNLPRLFKLHDKILSLSVLVNSEFGPQCVPYMAACFVITIFGIFLETKVMFIVGGKNELMDYVIYLYVIWSFTTMMVGYLVLRLCCQTYAHSKQSAMIVHEIMQKKPTFMLGNDIYYNKMKAFTLQFLHWEGYFQFNGIGLFVLDYTFIFSVSNSLKIKKPIMRVLVNVMEKIFQTVSAATSYLIVLLQFDMTAILKSEGLTPKALGSGAI

>AludGR64e

MKVAANITKNWLQRQELRLRHIKLWQRGRKVGSEIVQSKPRSATLKMPKERKQHRRMLQVRNIFRRGTKQDYEHSGSFLEAIGPVLVLAQLFALMPVCGVLSKTASEIYFSWKCVRTWYALLVIACLGPASLCTITFAFHEKFSFDTVEAIVFYVSIFLIALGFFQLARKWPALMLQWERIESKLPPLKTQMQRAALAQRIKMITLVATMCSVVEHLLSMLGIIYYVNACPAMPGHPIQSFLHSNWSQYFYFFEYTNLAGILGKVLNVLSTFAWNFNDIFVMAVSVALSARFRQLNEHMLRVAKRPTTEKFWIENRINYRNLCKLCEATDDTISVITLLCFSNNLFFICGKILKSLQKKPSYSHTAYFWFSLGFLLMRTLMLSLYSAEIHDESRRPLIVFRGVPSEFWCPELKRFSEEVTTDLVALSGMKFFHLTRGLVLSVAGSIVTYELVLLQFNKEDKVGDCYEN

>AludGR28b-2

MDEDTNSIEAQEACATHPQRVSGLRRFFHAQQLYESVQPLFVVTFWHGLTPFFIKSDGAGNKKLKESICGYLNTLIHITVYVACYVLTLLNDFETIASYFFHSRISRFGDTMQIVSGLIGITVIYFTAILPKHLLQHSLRTMQDMDVLLRSVGVQILYSKVLRYCYFSLLVVFAVDTVYSCGNFILLKSAKLEPSTPLYIVFTLQHTVISIATAMFQGIVKLLEMRLVMLNKVLKNLAHQWDNNGVVKPIPKQRSLQCLDSFSMYTIVTKDPCEIIQESMEIHHMICDAASTANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSKRESKFKTVEFVTFFSCQMVLYLIAIISIVEGSNRAIKKSEKTGGIVHSLLNKAKSAEVKEKLQQFSMQLLHLKINFTAAGLFNIDRTLYFTISGALTTYLIILLQFTSSNMPDQQSPQEGQNTTTLMNILQNSTAGP

>ZtauGR63a

MFNSYNRRKKHDTVFLNVKPTFNGQGGGLRKYSTGLLDKEDNPFYDVHSSNGSRASVGTITTLNENFRANIFYNNIAPIQWFLHILGVLPITRREPGKAKFRINSIAFGYSFAFFILLSVFVAYVAKNRITIVTSLSGPFEEAVIAYLFLVNILPLILIPILWWEARKIAKLWNDWDDFEILYYQISGHSVPLNLRRKTTMIAVILPILSILSVVITHITMADFQMIQVIPYCILDNLSAMLGAWWFIICESLSETANILGERFQRALRHIGPAAMVADYRALWLRLSKLTRDTGNATCYTFTFINLYLFFIITLSVYGLMSQLSEGFGIKDIGLAITAIWNVFLLFYICDKAHYASFNVRTNFQKKLLMVELNWMNSDAQTEINMFIRATEMNPSNINCGGFFDVNRNLFKGLLTTMVTYLVVLLQFQISIPTDTGRHMNVSVADLATDMLMDSAEVELTTTSTTSTTTTTTTKMPPPARARKG

>ZtauGR21a

MAYWAIATRKGSPPMKITPVLNPNQREFLEDELLYREKLEILAENNTISTDLFVRKFEDIDDPVLLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPQKPGMPRTGYSWTSKQVFWAICVFSMQTTIVILVLRERVNTFLNDSDRRFDEAIYNVIFISLLFTNFLLPVASWRHGPQVAIFKNMWTNYQLKFLKVTGSPIVFPNLYPLTWSLCFFSWGVSIAINLSQYYLQPDFKLWYTFAYYPIIAMLNGFCSLWYINCTAFGTASRALSASLELTMMGDKPAKKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSLSEIMDHGATYKEVGLFVIVFYCMSLLYIICNEAHYATQSVGLDFQTKLLNVDLTAVDSATQKEVEMFLMAITKNPPIMNLDGYANINRELITSNISFMATYLVVLLQFKITEQRNYSLKQSRMESPMEE

>RpomGR39b

MLHEWQPLFKWLAIVGLVPYAQRNRNCKQHYEQWQRIYTSALLVANWVLTIYGVYNQPLDDEVLVSNFVSVMVFLSQSLALTICLLEAMCTYRQYFAFMQQSQLIVRLFRQRLQTGLCRWSLRRLQRIKYLLYSGFAYGSLPISMVVISIKYYYGYFWYALGSIFVLRTRCLLAIIYLDYIDFYMQNLNMKLHSVASCRVSKQRLCLDVNYKMLESFDYLLQLKLLFDEIRKLTLMFDDLFGWSVCALFTVIFLDICVNSYWIFLTLSNVFEYYFLYLTASTVLPLIAITTLLCQAGENCKRQSLKTGILIQRLLHSKYKYTNAKLYNDLLFEFAMEIQQDPMKIAVKEFVTVDLRLLMKIFTAIVTYLVILLQFRWTYP

>RpomGR66a

MKKMAQQTVQPILVHFGNLFLLCKILGLYPHDLQAFRRTHTLQSSKIGTFLVAVTMIVVVVFYNLLIYSFSEEDRDLKATQSTLTFVIGIFLTYIGLGMMLTDQCSALRNQSKIGELYERIRAVDENLLRENIFVDISATSKRIFIMIALTVVCELTILLSTYIMLVDHSEWISLLWIFSCFPTFYNSLDKIWFAMTLSALRQRFCMINSALEEMVESHERLQRWMENGADGSAFKKPSFTNVPFDPSLEYLYKELTHMEPVKAFSYGKNRISPIAHSLNSFGEGFETPKKQPKPSSQPPPFNMVYESELNGDIQKVEEKLNNLCQLHDEICEIGKVLNELWSYPILVLMAYGFLIFTAQLYFLYCATQNQVIPSLFRSAKNAIITTIYLSYTAGKCIYLIYLSWKTSLESKRTGICLHKCGVVADNNLLYEIVNHLSLKLLNHSVDFSACGFFTLDMETLYGVSGGITSYLIILIQFNLAAQQAKDAIHNYDDESDSLVPTTAEGNTTTFLDFFTTTFMPTA

>RpomGR64f-like

MKFALKIGWKIGNVTADARLRMQQQQQMRKSQRMWRRQCDKGGTRRLSQSATNVAAIFGPSTPQRDHKALLIKRTCTEFLAQMELLHLQIDKPPKVLAKSEKKKFQPDGSFHQAVGRVFLFAEFFAFMPVKGVTASQPSQLSFSWTNLRTLYCLLFILTTTIDLGLSINKLLYKPINFNSVEPLIFRMSIIVVCISAIVLARKWPALMLYWDEMESDLPEYLTQMEKGRLAYRIKIVTIVAMMLSLAEHLLNIISNILYSNACPQSDDPIKDYFILTNQQIFDVFPYSVYLAICGKLENIICTFIWNFMDVFVMIVSLGLAAKFKQLNDNLFKFKGMQMPEIFWLTRRKQYRNLCELCARIDGAISLITMISFSNNLYFICVQLLRSLNKMPSFAQLVYFYFSLFFLIGRTLAVSLCSASINDESRKPLRVLRCIPKESWCTEVKRFSDDINSDLVALSGMKFFYLTRKLVLSVAGTIVTYELVLIQFHQDGALGECVSNLRPLSSASNGSAH

>RpomGR64e-like

MTSWLHMAIGGNLFALALVYIPKEAKGPPHTPLRNMMHNFRGGLAPIGGDANAHHAQRIVELKQRSATPNMLKQRKRHKRMLQVLLLAQLFALMPVCGVLSKSASEMYFSWKCVRTWYALLVIACLGPASLLTISVAFRASFSFDTVEAVVFYVSIFVISIAFFQLARKWPALMLQWERTESQLPPLKTEMQKAALAYRIKMITLVATMCSVVEHLLSMLGIIYYVNACPAMPGHPIQSFLYSNWSQFFVYFDYTNLAGIFGKVLNVISTFAWNFNDIFVMAVSVALSARFRQLNEHMLRAAKRVAGSIVTYELVLLQFNKEDKVNDCYEF

>RpomGR64a

MISLVLIIGQCFSLMPVRGVGHSNPRQVRFTFRSIQVMITLIFLFASSTFNFAMIKHLAKIGIVNFVCTFVWNYMDLFIMMIGKGIAYRFEQMKMRIHTLLDKEVPESIFMEIRDHYVKLIELLEYVDEDLSGIILLSSANNLYFVCYQLLNIFNKLRWPINYVYFWFSLLFLIGRTTFVFLTAASINDEAKDALSVLRRIPANTWCVEVERLIFQMSTTTVALSGKKFYFLTRRLLFGMAGTIVTYELVLLQFDEPNRTKGLPDLCS

>RpomGR43a-like

MKKSAKIPSFRMKSATSKVVTALDVSVVVFACTAGVGCGLWGLRSTRELNTRLRKIDDSLHSFSNFKRDHILAIVMMSVPLIAISLLLALDISTWLRFAIGERTPEDDTEINVQWYIPFYSLYFILTGLQMNFANTAFGLGRRFRRLNVMLKSTFLKVENSKKDASSMPLITTVKVVSQNPLALHQSLNKFANETMQKDGGGGKESKNKVVLLKMLEENHESLGKCMRLVSNSHGVAVLFILVSCLLHLVATAYFLFLELLSKKDSGMVWLQVLWIIFHSLRLILVVEPCHLATVESKKTIQIVCEIERKVHDPILAEEVKKFWQQLLVVDVEFSAIGLCRVNRTLLTSFSSAICTYLVILIQFQNTNG

>RpomGR10a

MWTSKNNSGWNKVATTPMSSHNNSNYGHIYATLYGLTVINYIPQRPTNTCTHRLAVIYGHTISVLLIVVLPIYFARNISALTEAHDQRGQLLLLVNFANTLLKYVTVVVTYVANFAHYAAIRAVTRRRQQLEDDFNSSLQVQPVYDERPRRQFETMLLFKFGLINAMMAVQVANILYQHCTGAHPVRVYIAVYTFVLWNYTENMADYFYFINSSAMKFYQQLNQQLRQVVREAKLLHYFRMRGQRRGTVPHLCGLLCERLDTLAQRYQQINRLCQDSLTMHQFQILGLIFITLVSNLTNSFILFNLFVKHSQARASPAIVLNALHAIIFYVDTYIVALVSENISLELRNINQTLRQFNQVSELDVRLQQTIECFTLFVTNNHVEVRICGLFVLDRSLTYLTAATALSYFITLVQFDLNLM

>RpomGR47b

FKWIYIILYYAGCLCFQPARSALQLTRFNIAYTHFIRIVILLGFIWSVTMKISSNEGSKAMIGHLSPVLKFVLIMECFISAIAFTVSSATMERKKYKHLQLTKSFQDLDNRMENDFPNINWNYYKTERKFTTFTICVIVYFYMIAFIYVYKLSNCSCDYATTFVLAFSHATCTAAPSCIIFLNIGMMDLQRIRYRLIQRLLKQQYTSGGDVRRQAEFQFRLARLIDYCKSYIQLILQINDVFGVVGGIDLFHDFVVLTNLTFLMCQKATEPNTRLKEYVFIFLFMLPRIYKVTIYAVYGYVTNKEQTKCIHEVKMCENYFRGSKAIKNNLDTFIHWQMQNTYSLLVGKATFCNLTILYLIVKSILSSVLILIQLQLQQNSITNRMKNHGMIKDVEFIYGKS

>RpomGR22e-like

MHGVNTYRLRKRISRVLIKATFVLSICFGLLPFYYNQQQKRFTTSKSITIYNIFINILFASIMVFVLQIFSNAEDPFQTRDPLAELLNQMVTYASFCAILITWWINWTGRKELQKLFNEFAAIDADYCYRYPNLVNECAHFDSYLIWKGASILLQNASAFANMWLLVDAGWLFILCICLATVLTNVLFLVMTHFFIAVLYTYRFAWVSNMRLQIMADSGNEVQQRAQCRLVSLEIDAIAHTYLRLIRLCEGYTKIHQYQLLLVVGCITACNIEVLFYMRLLWGGKAYEMDASNIFGIIQIFFVNILDFWLTMTICELAVVTSQKTLQILRVFNEKWDLAVPVERSLERFALICCSKKLRFHLCGIFDINHLTGLQVLFTMILYLIYLVQYYHDNL

>RpomGR93a

MCIILKLILSGLGLIYEIPLIFESGVSGSLLAGVYLWLGRIYMLDCCFVGFLVIRQMYVEMAAHLAQMIDTMRIIDAEQPPHRRLTNHQRMKLLCIHAESIDESSVIYTSLYKVTQRFYHIFRWQISFYIYYNFVIILMQLHQFILRYFHTGYIDLLSLFSSVFKLCNLVLLIMCADAVVAKSQLPDSLDLDLICSDIDERWDVSVETFICQRKVENLEISVLGFFHLNNEFILVIISAIMSYLFVLIQFGMTKNSVAAGHAYPHHTLNHS

>CstyGR64e

MKIAKNKIYLNSPKRRLMEIKFWKTHKVDAVENDSLYYRIKSANMTQNQRKSKIFKLKHKLLRRGTKKDYTHTGSFQEAIKPVLVLAQIFAIMPLAGVTSNSAYDLKFSWRFIRTWYSVLTLISFAFFMGITVAFAFSGV

FNFDSVEGLIFFSSNFFIALTFFNMTRKWPALMQQWQQVEHGLPQQRTIVDRSWLAHKIKIITLVATVCSLGEHTLSMLNIIYYVNRCPTFKDHPIDSFLYTNFSQYFFFFEYNTLAGILGKIINLLSTFAWNFNDIFLMCVCVALASKFRQLNVYMAAHLKKATPATFWMECRRNYRLLCRLNEAVDNTIAGITMLCLSNNLYFICNKILKSLQKKPSITHTLYFWYSLIFLLGRTFTMALYAAEINEESRKPLVIFRKVKREFWCPELKRFSEEVNADMIALTGLKLFNLTRSMVLSVAGTILTYELVLLQYNKQSVIGDCAAN

>CstyGR63a

MWNNYNRKKKQDAIFLNVKPVATNISVRKYSNGLLDRLDSGFGNYNKEKRTSRQSISTIDSMNQQFLPNVFYRNVAPIKWFLSMIGALPMKRAGPGKAKFVIGSIAFAYSIVFFTFLMIYVAYVANNRIIIVTSLSGPFEEAVIAYLFLVNILPIFLIPIMWWETRKICALVNDWDDFEILYYQISGHSVPLNLRGRSRTIAIALPILSILSVVITHVTMADFDLIQVVPYCILDNLTAMLGAWWYLICEALSTTANILAERFQKALRHIGPAAMVADYRALWLRLSKLTRDTGTATCYTFTFLNLYLFFIITLSIYGLMSQLSEGFGIKDIGLAITALWNVCLLFFICDQAHYASFNVRTNFQKKLLMVELNWMNSDAQTEINMFLRATEINPSNINCGGFFDVNRNLFKGLLTTMVTYLVVLLQFQISIPTDVRTVNRNITISDDISMSDASMNSDEMDADIMTTIMTTLAATTTTAAVPPVRGRKG

>CstyGR28b

IMKFRHSKLVMVTIVCVGYLSSSLWMLFHNQIWPSFQAVVAFFVPHIFLLCVVVLNVSFVMRFWQHFDLLNKVLKNLCHQWDTRSIKTITHKQRSLQCLDSFSMYTIVSKNPAEIIQESMEIHQLICEAASTANKYFTYQLLTIISIAFLIIVFDAYYVLETLLGKSKRESKFKTVEFVTFFSCQMILYLIAIISIVEGSNRAIKKSEKTGGIVHALLNKAKSADVKEKLQQFSMQLMHLKINFTAAGLFNIDRTLYFTISGALTTYLIILLQFTSNSPSVTQNGCDPPLAVTANHTQT

>CstyGR21a

MAFWASVSTKSPLKIAPVLNPNQKQFLQDELRFREKLDILARSDVNNLTDYYVRKHETIDDSDLLDKHDSFYHTTKSLLVLFQIMGVMPIHRNPPKSNLPRTGFSWHSKQVLWAILIYCIQTTVVVLVLRERVNKFVVNSDKRFDEAIYNVIFISLLFTNFLLPVASWRHGHQVAIFKNMWTNYQLKFLKVTGTPIVFPNLYSLTWALCICSWALSILINLSQYFLQPDFELWYTFAYYPIIAMLNCFCSLWYINCTAFGTASKALLNSLKTTLRGDKPAEKLTEYRHLWVDLSHMMQQLGRAYSNMYGMYCLVVFFTTIIATYGSFSEIIDHGATYKEVGLFVIVFYCMSLLYIICNEAHYASQKVGLDFQTQLLNVNLTAVDTSTQKEVEMFLVAIAKNPPIMNLDGYANINRELITSNVSFMATYLVVLLQFKITEQRGIRSQQAMASM

>BcucIR1

MKLFLKSAKAKTKATKTTHKYVLNMCMPSMQQRSLPTHQHRVPRCCWRVATRTPECFNNKIKMALLILIWTAIWCRRECVAVERHSNQAVYANNNNKSNNISNLHEQLEINAVDDNVDVEVLLSNVEDELFRVVAPIDLVDEGSLEQVLFKRDTAKATDGVSEELNATTGYEFTTLDAAMTGVADTKRMMTQQITEIQTETETTTTANDINSVATTMNSSVEINEYENVKNNGNENVERAKVVDRKIIAATTTRTAATALFAESVSATAAATPQTGEQQNIAAEGRESEKEEAIAPEMQTDDGEEPVDVTAALQQQLIYEFAIKYKHIPRVTYFTCRWQSSEGSGGNTFGEQMTYLNMQTLAMMQRMYGSEVVDKMRSEPDTKASQKAKKASAADKVTTKRSSAPITATTARAAPPSRAVETNTPKVRNNGNTRSKRTTTAAVTRAQTAAALLNNGNVTQSGKGSNRASRVTSDASAATTTAQWDILIKVVHIDQLINKRPTAANNKNGKNNRNYNWNVQRTFGGGFAAGGGYGRSAAGNAGARNAYTNANWLAQVLRDDGSRQLVVLNLACGAASRRLLEMASNKALFNATYHWLLIEDYTFNRNADIDDNVDNDRNGNNNGNANCKRTSAHQYNETVDSDKNSNKNKFSEQTETQQLQESKEEIEKKKQQQLTATATTSITPHPKATLTAVAALTVTANNENTMEIIEKYLEKLNININTELILAKRHTRRIRDDAAQIGDNKKCAATNDDAGDGGGSGSGGCCTSSDSESATNNTLQRKDYYQLYDVWNPGLQYGGQ

LNISEIGYFALDDGLQIALWYRRSTTITRRMDMKMARIRCLIVVTNKNHTDTLEHYLTTHYDTHVDSMNRFNFALLSSVRDLFNFSFVLSKTASWGYLKNGKFDGMIGALVRKQADIGGSPIFFRIERAKVIDYTTRTWVARPCFIFRHPPSTKKDRIVFLQPFSNMVWILLGLCGIFTICLLWLLTSVERRLEAVGVVEQLGHSTRSSSGSNATTTTANNKQLCAIGGNDELPPPVGCRCSTRMPLSAGTMPSCGACNAPSVGLATKEQRKQKLEKLMQRRGKTEARRKKVHGISCRRSMLGCGSACCGQTGSVAAQQRTGLFFESVLFYVGSICQQGLTFSTSFFSGRCIVITSLLFAFAIYQFYSASIVGTLLMEKPKTIRTLRDLIHSSLAVGVEDIPYNRDYFLRTKDPIAIELYAKKVTSVPTDNEALSETTADNVTTLSPLQPGVELTAAEKAKTYREILHSHETGAHAKTNEASNWYDPEYGVKRIRKGKFAFHVDVATAYKIIADTFSEKEICELTEIQLFPPQKMVAIVQKGSPLRKTITYGLRRVTESGLMDYQRKVWHSPKPRCVKQIHTDDLRVDLQTFASALLVLIFGYAVSLLALSIEIIQHKLWQRYRAEQEDEQEYE

>BcucIR2

MKFLLLHITCALLYASAYAADERPKFNVGIIFASKNDETEIAFRTAIERANVFERSFELEPIVEYADTDDSFMVEKTVCKLIAQGVIAIFGPNTAGGTDVVTSICNTLDIPHIVFDWTPSEALSNRQHSSMTLNVHPNNILLSRGLAEILQSFSWRSYTIIYETERELQQLQDILQVGEPSSNPTSIRQLSEGPDFRPFLKNIKLSTDNCIVLHCSTDNVMKILNQANELKMLGEYQSVFVSVLDTHTLDYQELLTVTANITTVRLMDPTDYQVKNVAHDWEEHEKREGRYYRSDPSQVKTNMILANDAVTMFVKGLAELGIAEELNPPKLECRKNRAWAHGRRIIEFLKARSVEGATGRVDFNEYGERNFFTLRFMELTPAGFLDLSTWDPVNGVDALEKEDASEKRVGEKLSNKTFIITSRIGAPFLLNREPKDGEILQGNARYEGYSMDLIDAIARLLNFKYEFVLAPDGKYGSFNKLTQSWDGLVKQLLEGNADLGICDLTMTSTRRQAVDFTPPFMTLGISILYAKPEQPPPDLFSFLSPFSLDVWVYMATAYLCVSLLIYGLSRMAPADWENPHPCKEPEEVENPWCMSNTTWLAVGSIMGQGCDILPKAASTRLVTGMWWFFALMMLNSYTANLAAFLTMSRMESSIESAEDLAAQSKIKYGALLGGSTMGFFRDSNFSTYQRMWTAMETARPSVFTKNNDEGVDRVLKGKGRYAFLMESTTLEYIIERNCELMQVGGWLDYKTYGIAMPFNSPYRKQISGAVLKLGESGMLSELKRKWWKEMHGGGSCSQTESSGGDTPELDLENVGGVFLVLGIGLLTAILIGMCEFLWNIKAVAIEEKISLSEAFKAELMFALRFWIQTKPVHTASTSSGGSSSSSSSKSTKSSKSSSSSSSSASKRSKRSSKSYARSISQSTKSITNATHDPDKNDLSVHDKLRKISSMFSLKSARSEPSVANVHLEAPPALKHNSHQSHNPVNKSTHTPMVREVAQQTTLTTDDGEEEQAPQLKIDEIPIVEPHHHHNHNHHHHHHHQKHHEHNHQQPEEDHQPAIPLIERTQNGKVSRNGHAGFGNAEV

>BcucIR3

MLNHNLNVSSRRFELQAYVDVINTADAFKLSRLICNQFSRGVYSMLGAVSPDSFDTLHSYSNTFQMPFVTPWFPEKVLTPSSGFLDYAISMRPDYHQAIIDTIQFYGWRKIIYLYDSHDGLLRLQQIYQGLKPGNESFQVEMVKRIANVTMAIDFLHTLEDLGRFTNKYIVLDCPTEMAKQILIQHVRDISLGRRTYHYLLSGLVMDDRWESEIIEFGAINITGFRIVDTNRRFVRDFFDSWKRLDPATSIGAGRESISAQAALMYDAVFVLVEAFNKILRKKPDQFRNNIQRRGQQTLMAAASTSLNGTMGMAVGGGVGGIGNGIGGSGGSGGGGAGIGNGNGGNGGGGTPRALDCNTSKGWVNPWEHGDKISRYLRKVEIEGLTGDIKFNDDGRRVNYTLHVVEMTVNSAMVKVAEWSDDAGLQPLSAKYVRLRPHVEIEKNRTYIVTTLLEEPYMMLKRPGIGEQLDGNDRFEGYCKDLADLLAKKLGINYELRLVKDGTYGSENPTVRGGWDGMVGELVRREADIAIAAMTITAERERVIDFSKPFMSLGISIMIKKPVKQTPGVFSFMDPLSQEIWMSVIFSYIGVSIVLFFVSRFSPYEWRIVQYQTDSHAHHDQMANQQPPGIIGGVPVPGPMTGATSATASPANIGVVSAGGVAGSVGLGSSGNVAVNEFSILNSFWFALAAFMQQGCDISPRSISGRIVGAAWWFFTLILISSYTANLAAFLTVERMVTPINSPEDLAMQTEVQYGTLLHGSTWDFFRRSQIGLHNKMWEYMNSRKHVFVSTYDEGIRRVRTSKGKYALLMESPKNEYVNAREPCDTMKVGRNLDTKGFGIATPIGSPLRDPINLAVLSLKENGELIKLRNKWWYDKTECNLNKDNQETSRSELSLSNVAGIFYILIGGLLVAVFVAIIEFCFRSKASVQKANGSMLSSASGGGSHQRNSLTDAMHSKAKLTIQASREYDNGRVGYLNCASLQYYPAGQLSAASEAETMHMNAHSQV

>BcucIR4

MAVLDGMSVVFLLFCGIHLGVTAQKHTQHSDNPSTYNIGGVLADPESESHFRTIISNLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIEKRVYAVVVSHEQTSGDLSPAAVSYTSGFYQIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEIMFHFGYTKVIIIHSSDTDGRAILGRFQTTSQTNYDDIDVRATVEMIVEFEPKLDSFTEHLIDMKTAQSRVYLLYASTEDAQVIFRDAALNNMTEGGHAWIVTEQALHANNTPVGVLGLVLEHANNDKEHIRDSVYVLASAIKEMMSNETITEAPKDCGDSGVNWESGKRLFQYLKTRNITGNTGQVAFDDNGDRIYAGYDVINIHEKQKKYVVGKFYYDPEKAKMRLRINDSEILWPGKQKKKPEGIMIPTHLKILTIEEKPFVYTRRLTDDEVNCDEDEIPCPLFNATDGSENENCCRGYCIDLLNALSHRINFTFDLALSPDGQFGHYTLKNVSSSSSGAITSRKEWSGLIGELVNERADMAMPLTINPERAEFIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLSHTDSNEEKALNLSSAIWFAWGVLLNSGIGEGTPRSFSARVLGMFWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYDTAEQAIQDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEALDKHWIFHGNAQQCELFEKTPNTLGLQNMAGVFILVAAGVAGGVGLIIVEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTLRASLAMQRQYNVGLNANPGTISFAVDKRRYPRMGPRAPEQAWKSDADILRNRRYLDEAAKGGHSPAVHMPILGKMRPPTNMLPPRYSPAYTSNVSHLVV

>BcucIR5

MLLLQKLVILISFSYICANELKIAFWIDPLQSGIELDVASAVKEIKALQLETEIQYYVVVIENTGRQKEEKNMEKLCEHLATDGVSVVIDFTYHIWHNGLDLLRMYQIPFLRVDRILAPYLKMFSQFVLEKSGHECIMIFQNARDTEEAVIQVVEGYPFRTLIMNAFDKQDFIQRLRKIRPMPSCYAIFAEGTAMNSIFERISKANVFERPREWHFIYLDPRDRVFKFKKQVDFATKFTINPKTLCRSLRMKDAYCLSGFSLQRAIILEILRGLIELKQTNLYWLQTFVMECNYTSPNENGTNGFDILEQFPLNEFLYFTTDVRFPNDEFDHVPRLTYSPTININLYSSEHDAVTELAIWQNDNLRKINETISKPRRFFRIGTVEAIPWNYMKRDPKTDELILDAYGNPIWEGFCIDSIKKLSERLNFGYMLVPPTSGEFGRRDVINDRWDGIVGDLVTGETDFAVTALKMYSEREEVIDYIAPYFEQTGISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSAIMIWLLDKYSPYSYRNNRAAYQYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVEGSSTHQYFINMKFAEDTLYRMWKELTLNVTEDFQKYRIWDYPIKEQYGTILLAINGSEPVKDAKEGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEVFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEDLKAKYWNMSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIIYYRRKYSAMHRFNEITKVKPASGTSIKQLLPKKKKKRIAVWHTSTSKRDNSPEHQTPPPAFDAVKFRGKKVPPSITLGGQEFKPRRAGLRQLSESLDSEEYRKEGIPANRDDELPPYTE

>BcucIR6

MRFSNIFGTFLLLIVVKLTHEYTNNGDIEVKVGVLFFRDEYEIELSFDEAFREINANKLFGLTFQLIKRFVPSDDSLLLQQLTCELLSDGVVAIFGPSSKASSDIVAVIANATGIPHMEFDWRIESPTQDRLNNRMTVNVAPSVSMISKAYYSIIKANYKWNKFTLIYETKAGLARLQDLMNIEALDNELIKIRNIEDYKSDLRVLWKEASETLHEHRVILDCEADSLQSLLLIAKDFKMLGAFKYLFLSHLNTHNSPLQSMYNADYKANITSARLKLVEGNPFGRKKTRLRPIDEIFQNQTLLPIIMYDTVVLFANAARNVITKIRTYVEPQRRCDFSYPGRPWHIGRKIVREMKSISEDDVEPPFKTENLKIDENGQRSVFHLEIYKPTTNEILGIWKPDGTISPPTTTQFGSDNAVSAPDFSLGRKMFIVTTRFEEPYFMLREDYEALRGKDRYEGYAVDLIQKLSNIMNFDYEFLVERTTGKLNPQTGEWDGMIRRLIDHQAQIAISDITITQARRQVVDFTVPFMQLGISILYFRRPKEAKNEFAFLEPFAEEVWYYLMLTQLIMTLLFVLLARFSHYEWTNPNPGKPDPDELENIWNNSNSFWLMIGSIMQQGCDLLPKGPPMRILSSMWWFFTLMIVNAYVANLAASLTNNKIPTEFDSLEGLVDQNKVKYGTLAGGSTSVFFSESNETVYKRAWNQMISFTPSAFTSSNKEGVERVRKGNGSYAFLMETTSLSYNVERSCKLKAVGEQFSEKHYALAVPLGAEYRSNLSVSLLQLSEKGELYTLKRRWWKLKEELNCDDSDNTDGDELSIIELSGVFVVLGAGVVVAFIIGICEFLWNVQTVAVDENTTPWQAFKAELCFVLKFWVTKKPANISESTKSTTSSKSSSKRSLDRYRSRSHSHVSGHSRRTTKSKTRDRERERERSVHSRRYYD

>ZcuIR7

MPSAHLKFRKEILIFLKIISLASLATGQTNQNINVFFVNDADNEPAAKAVTVVSTYLKKNPSYGISIQIDQVEANKTDAKTLLEAICSKYAESIERKQPPHVIFDTTKSGISSETVKSFTKALGLPTISASYGQEGDLRQWRDMDESKQKYLLQIMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPSYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQITSAFYFDLALRTFLAIKDMLQSGAWPKNMEYIGCDEFLGGNTPERNIDLRTAFTMVQEPTSYGVFELVTQPGKAFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEEVMKNLTADTVYRIFTVVQAPFIIKDEKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKTIDSVILGQAGKEYDKGGNTVLRPRFHQYPTTFKPRF

>BcucIR8

MPPNWTCFLVGVALILCGLQTVYSVPPTEAKVEKIGCVSPTLIRRHNLNPQLYGSCEYGQRNATLPLLQRLRREIKPIFRGHPKPRAEVLANKFHMNAFGSDQTDSLVRLINKIAIEYLHKCPPVIYYDSFVKKSEGMILESLFKTFPITFYHGEINEHYKPINPRLKRRIDSQCKSYILFLSDPEMTRKIIGPQIESRVVLVARSTQWKLRDFLSSESSSNIVNLLVIGESLTETPLRERPYVLYTHKLYTDGLGSNTPLVLTSWIGGALSRPHVNLFPPKFSNGFAGHSFQVSAINQPPFIFRIQSLSRGGTSHTAWDGLEYRLLNMIAAKLNFTIDVIEPPRRPNVKSIIDNIMYQVSTKAADVGMCGLYITDERITETDMSIGHSRDCASFITLASKALPKYRAIMGPFQWPVWVCIVVIYLGAIFPIVYSDRLTLRHLIGNWGEMENMFWYVFGMFTNSLTFSGKYSWTSTQKTSTRLLIGSYWLFTIIITACYTGSIIAFVTLPAFPNTVDSVNDLLGLFFRVGTLNNGGWETWFQNSTHVPTIKLYKKMEFVSNLEEGIGNVTQSFFWNYAFLGSAAQLEFMVQKNFSDDNISRRSALHLEECFALFQVGFLFPRDSVYKRKIDSMILLAQQSGLMNKILNEVKWSMQRSASGKLLQASSANALRERIQEERQLTTADTEGMFLLMGIGYLLGAIALLSEIVGGITNKCRQIVRRSRKSISSAWSSKRNSEDEESLRTAAEQLAHDQRKEAKRKAEKQGFGVREFNLTKKTLQELYGNYYKQEPNYVLKDGKLLLETEALSASSTDCNSRGSSGDVPANRLTHLHSKKKAMLVAEIDVERERERMAAAAEESLAALDACLKMQEDANSSERSDDDDATYEYELFGSLVEPEGPLSTKLNELNLLTDGAALLKALEDESVVVEKS

>BcucIR9

MWKYCLIVTLTCLCVQNVAALPHINIGAIFYESELDLERIFIATVESINSEKVNNFKMVPLVRRVSESDGSMILQRQACDLIDNSVVSIFGPSAKADSDIVALICNATGIPHLQFDMSAEETEAESKNHQMTLNVFPTQQMLSKAYADIVLTFGWTKFTIVYDADDSKALTRLQDLIQLREIHNDVVRVRTFQRGDDYRTMWKSIKGERRIVLDCEPDLLVDLLNTSIEFKLTEQFNNLLLTNLETHNADLEELRGNETFEVNITATRLKMNGNFYYANAWQLASLYDIDPSTEQPKRTLLHDLLYDAVHVFANALRNVSYSYLIRTPRVRCDFSDVSDYEQMQPWPMGRYIYRVMLATSGVNNTDYRTSDLQFDDEGQRTNFGIEIYEPLENYGIAFWDTKGQITPQHIELDSTKKLVYRVATRLGEPYFMLNPEMVGQNVTGNELYMGYAVDLIDELSKLMNFEYIFMPVADNSYGKYDKETKQWDGIIGELINNNAHMGICDLTITQARRTVVDFTVPFMQLGVGILAYNEDEKLELLKFLEPFKDEVWICVIVAIFVISFLFVCSARLADDEWENPHPCNKDPDMLENKWGLFNTFYLTAASIMQAGCDILPKSAPFRTFTATWWIIAVIIPNSYTANLAAFLTSSKMVYDVSDLKSLVEQVDIKFGTIAGGSTYTLFAESNETVYRMAYNMMNNEDPSVYMKNNTEGVNRVIKNNGKYMFLMETTSLEYNTERNCKLSMIGEKFGEKHYAIAVPFGAQYRYNLSVNILKLSETGKLFELKDRWWKGEKNCGDEEEDNEALGFQHVRGIFYTLFLGLFAAYFLGIMEFLLHCHSRASEEKLRFKEVLVNEMRFVLRLWNNRKPVSCTPTASIDASSRRSSNRTTRSLTKKNSRQSSGSGEELRDLPQKKVKKNGSIIKEGTM

>BcucIR10

MARPYRQSMPQFVATTHCTRITLIFLVALSFLQIAATQKTNVGLIYESTNPDMEKIFQIAIDKANEESGGTVELHGIAVAIEPGNAFETSKKLCKMLRQNLVAVFGPTTDLAAKHAMSICDAKELPFIDTRWDFEVQMPTVNLYPHASQLALALKDLVVALEWTDTFTIIYETGEFLPTVNELLEMYGTTGPTITVRRYELDLNGDYRNVLRRIKNSGDYSFVVVGSMDTLPEFFKQAQQVGLMTSDYRYIVGNLDFQTMDLEPFQHGDTNITGIRLVSPEAQKVQELSKTLYETEDPFQNVSCPLTTSMALVYDGVQLLAETFKHVMFRAVPLNCNDASSWDKGYTLVNYMKSLSLTGLTGEVKFDYEGLRTDFALDVIELTMSGMQKVGEWKTEDGFVANRPPPKIVEQDQRSLVNKSFVVITAISEPYGMLKETAAKLEGNDQFEGFGIELIEELGKKLGFTYTFRLQVDNKYGSFNPKTGKYDGMMLEIIEGRADMGITDLTMTSIREEGVDFTIPFMNLGIAILFRKPMKEPPKLFSFMSPFSGTVWMWLGIAYLSVSLTLFILGRISPTEWDNPYPCIEEPTELENQFSFPNCLWFSTGALLQQGSELAPKAYSTRTVASIWWFFTLILVSSYTANLAAFLTIESLSSPIENAEDLAVNKGGVKYGAKVGGSTFTFFQDAKYPTYQKMYEFMRDHPEYMTSTNAEGVDRVENENYAFLMESTTIEYITERRCSLTQVGSLLDEKGYGIAMRKNWPYRDTLSQAVLELQEQGVLTKMKTKWWKEKRGGGACSLEGANDGAEELGIANLGGVFFVLCVGSVFASVYGLLEWLCHVYGTARRNKVSFKTELIEEFRFVMQCSGNTRPVKYPKNSSRSRSRSSRSRSRSHSRSSSQSSTLSVDSLPMDESKLHHISEHTKHAK

>BcucIR11

MRVLLYVLLSFVFFAQTAQFTKDFQVVKVGVIFFHDEMELVQAFDTAIRNINELELDVRLEPIKHYVSYDDSLTLQEFACELIERGVAAIFGPSAKASSDIVEVICNTTGIPHLQFDWHQEDVHIHSRNHKLTVNVAPAENMLATAFLDILRLKELDWKSFTIVYENSRSLGRMEHLFGWRQVHKTGIKLWRFNRGDDYRTLWKLVCSTREKNIILDCPADIITEVLNASIYFNMTGQFNQWFLTSLDTHTSNIHSLDRHNFMATIVAVRVRSYMPPPVHDETDVFEDEEEDPINTIRAKLLYDAVVLYFNAIRNQIRSSRYQEPRVRCQRGYWRSGMDILDQMKLLTSRNVTPPYKTQKMQINTYGTRDEFNLEIYNPLFERITYIWNKNKNLTAFEDLVEAKEIKKQKFKENEDFTPKRVKYTVSTRFGEPYFMWRKEPEGVHYEGNERFEGYAVDLIYALAEECNFDVIFQPVPDNKYGSYDKEKDEWNGIIRQLMDNNAQIGICDLTITQARRTVVDFTVPFMQLGVSILFYEEPPPPKNLFGFLSPFSLTVWIYLLVAIMVTALVLVVMGRFSHRDWIGAIAHDPNPTEVENIWNLKNSLWLNVGSILNQGCDLLPRGSAMRIFTAFWWIFSLLLSQTYIAQLAAFITTSKMDSSISSLHDLINQNKVQFGMLKGGSTQFLFSESNESEYRVAWNKMIGMKPDAFTASNKEGVDRVKRSPGRYAYLLETTALQYYLNRNCELKQIGEPFNEKHYAIAVPLNAPFRSNLSVGILKLSEKGELYKIKNKWFTTNETDCNAEKAANANEDGTYTMESVGGLFIVLLAGILVSIIIGIFEFLWNVEQITVHDNVPAMVVLKAELKFFLRFWQTRKPLRTYAESRGSTSTGYSSFDQTASTSTVKKKKKKKCKKCSD

>BcucIR12

MHIQNNWIIGVLYAFIFHVNGFINIKENEGIAVGIITDHNTEQIRKTFEYAINVANTELGVPLIGYNEEIKFGDSIEGYTKICKFMQNGIGAIFGPSSRQTSAHLLTVCDAKDVPYMYPHMSDHVEGFNLYPNPLDLARILHNVIDLFKWTRFIFLYESSDYLSILNGLMSFYISDGPLINVLRYDLKLNGNYKAVLRRVRKSEDGQIVVVGSTPSVAELLRQAQQVGIMNDKYSYIIGNLDLQTFDLEEYKYSEANITGFRMFSPTQSIVQDLISHLDYSGSINDRIINDSCPITLEMALTYDAVQVFAATTKKIMYRPQALNCSDQSSQVQTDGSTFKNYMRSTNIEEKTITGPVYFDGNIRKGYTLDIVELQTTGLVKIGTWDERNNLTIQRPPQSKLWSEVDANSLVNQTFRVLISVPNKPYASLVESHKKLVGNNQYEGYSIDLIKELSAKLGFNYILINGGSNYGNFNKTTNKTTGMMKEINEGRAELAITDLTITSEREEIIDFSIPFMNLGIAILYTKPQKSPANYFSFLDPFSREVWIYLGLVYIGISLCFFILGRLSPTEWDNPYPCIEEPEELENQFTLNNSFWFTTGAFLQQGSEIAPKSLSTRTLASIWWFFTLIILSSYTANLAAFLTIEKPAAVITKVDDLANNVDGVKYGAKRTGSTRTFFSASEHEVYKKMNEFMIKNPDLLFETNFQGVDRVKNGKNYAFLMESTSIEYNIVRECNLMKVGEPLDEKGYGIAMVKNWPYRDKLNNALLELQEQGVLAQLKNKWWNVVGAGVCKKKSDSQVASLDLKSLGGVYLVLGVGSGLSLIYGLIMWCIYVARKANYYEVPFGAAFLEELRIAINVANNERILKSAQSVYSRSRNSLLSIDSIDTDSEVEKSSKTDEESENTY

>BcucIR13

MFIKQNIYLVLIFLSKQFWFSTAQYEKWSNKEYENDKYSFSKPIQIGLITDQYSEEMGIIFEHAIEVANGELKIPLEATKEEVNYGDSFQAYGILCKLLQNGVGGIFGPSSKHTARHLTTICDAKDVPYFFSEMNENPEAFNLYPHPMDFSKALYFLLTTYKWSRFIFLYESVEYLNILNGLQSLYGNNSTTITVLRYDIEMNNNYKSVLRRVKKSGDNCIVVTGSSDTMPEFLKQAQQVGIINKDYKYIIANLDFHAFDLEEYKYTEANITSFRLFSPEQKAVQEILEKMGQKSSSENLRNGSCPITVSMALTYDSVQLFAETTKHLRVRNVPLNCSDRSESVLDDGSTFKNYMRTLKLAKRTLTGPIYFDGNVRKGYALDIIELHPSGIMKIGTWNDYSNLTIQRVAQTNSVIDNVDNSLVNQTFTILLNVPNEPYASLVESFEKLEGNSQYHGYGVDLIKELAQKLGFNYVLKNGGNDYGSYNATTNTTTGMLKEIIDKRAHLAITDLTITAARQEVVDFSIPFMNLGIAIIHVEPQKETQAYFKFMDPFSNGVWWLLGLSFLLVSFSFFILGRLSPSEWDNPHPCIEEPTELVNQFTIGNSLWFTTGALLQQGSEMEPKAISTRTVASIWWFFTLLMVSSYTANLAAFLTIEKPTILINSIDDLVEHKHGVVYGAKKMGSTREFFEKSEDSRYKKMNKFMNEHPEYLTETNMDGVKRVSMTYAFLMESTSIEYHTMRMCNLSKIGNTLDEKGYGIAMRKNWEFRDKFNNALLELQEQGTLEKMKNKWWNEMGAGICTSGKQRSEETELQMKNLIGIYIVLGVGSGLAFVYGIVSWFFYIRTKAKHYHLSMKEVFLEEFKFALDFNSHTRILKNTASIYSRGRNSLPTDSSKEEQKSLQH

>BcucIR14

MMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQSEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAHPQFPIGMLGVHFDTSSAALMNEISNAIKIYAFGVEAYLTDPANRGRRLTTQSLSCEDEGRGRWDNGETFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNASVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPYSHKPSFKFGTIPYSHTDSTIHKYFKDMHHYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNKRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHIYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLASSSDLLNHHHLKERPPLLGNLSLAASAQDLYRWSYKTEIAEMETVL

>BcucIR15

MCAMRFHAFLWSLWLPLCLLALQPQNAEANDFSSFLTANASLAVVVDQEYMQRRGENILANFQKILSDVIRENLKNGGIEVKYYSWSQIRLKKDFLAAMTVMDCKSTWQMFDSTQQNSILLFAITDANCPRLPLNRAIMIPIVDEGQELSQIILDIKVQRLLRWKTAAVLLDQTILHDNPTLVESVVLESAKNHITPFSLLLYQIDDTLRSQKKRTAIRQMLNIFQDSTQTPRQFIVLSEFYEDIVEIAASMKLFHVYNQWVFFVLNEEQRSHDPMSVTQNLEEGANIAFMLNTTEPTCTNSINCTITELSMAFVKSISRMIVEEQSIYGEISDEEWEAIRFTKQEKQDEILGYMKEYLREYSKCTSCAHWKIETALTWGKSEEHRRYQSNLELRDTRNRNFEFIDVGYWTPTLGFNTHEVMFPHIVHFFRNITLDILTVHSPPWQILERNSRGDIVRHNGISMEILKEMSRLLNFSYILHEVKVNAADLAAEDMQHTNNVTDDLSGSLTFNIPYQVIETMQSSRYFMAALAATIDEPDKKSFNFTVPISVQMYTFISRQPDEVSRIYLFAAPFTTEIWGCLVAIIIITAPVLYFINRWVPMDHLRITGLSTLNSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFSSNAVQQFGLRNGSYFEKYATQITTRDDFRDYIQRANIYNNVQGEDIGAVQDGKRINVDWRINLQLIIQKQFEKDKECKFSLGRDNFVAEQIGLIVPRDSPYLQLINDQITRMFQMGFIERWHQINLPSMDKCSGHGGMRQIMNHKVNLDDMQGCFMVLLFGFIIALFILFVEYWYRWYFVERKKGVFAT

>BcucIR16

MQSPLLCPSWCWHYLRLSCWLAVLSTLLRHTLALPDVIKIGGLFHPTDDTQELAFRQAVEHINSDRLILPRSKLVAQIERISPFDSFQAGKRVCGLLNIGVAAIFGPQSSNTASHVQSICDNMEIPHLENRWDYRLRRESCLVNLYPHPNTLAKAYVDIVKHWEWKTFTIIYENNDGIVRLQELIKAHDNSPYPITVRQLSLSGDYRPLLKQIKNSAEAHIVLDCSSDKIYEVLKQAQQIGMMSDYHSYLITSLDLHTINLDEFRYGGTNITGFRLINEKVVSDVVRQWSYDDKGLQRSANLSTVKAETALMYDAVHLFAKALHDLDTSQQIDIHPISCDGQNTWQHGFSLINYMKIVEMKGLTNVIKFDHQGFRTDFVLDIIELGPLGIRKIGTWNSTLPEGINFTRTYSQKQREIEANLKNKTLTITTILSNPYCMRKESAVPLTGNDQFEGYVVDLIHEISKALGFNYKIQLVPDGNYGSFNKQNGEWNGMIRELLEQRADLAVADLTITFEREQAVDFTMPFMNLGVSVLYRKPVKQPPNLFSFLSPLSLDVWIYMATAYLGVSVLLFILARFTPYEWPAYSDAHGEKIESQFTLMNCMWFAIGSLMQQGCDFLPKALSTRMVAGIWWFFTLIMISSYTANLAAFLTVERMDSPIESAEDLAKQTRIKYGALKGGSTAAFFRESKISTYQRMWSFMESARPSVFTSTNAEGVDRVAKGKGSYAFLMESTSIEYVTERNCELTQVGGMLDTKGYGIAAPPNSPYRTAINGVILKLQEEGKLHILKTKWWKEKRGGGSCRVETSKSSSAANELGLANVGGVFVVLMGGMGVACVIAVCEFVWKSRKVAVEERLSAILHE

>BcucIR17

MKMKVFILYLLGWLPDGLVHGAITYNADRNISDVAIALSEIINGLKPRQLAILAAPQFHFTTRHAPLPTSAEIPDDTQLEGMQMDIDDFIYQLHKLNFKSVIYDKTDAFFKFVEDSLQGSIESVNLIFSAPYELSARIQERKLSHRLSLFIFYWGAKHPPKAQEVRFEEPMRAVVITRPRKKAFRIYYNQAVPDGVSNLRLVNWYDGDNLGLQKVPLLPNAATVYSNFNGRVFRVPVFHSPPWFWVNYENDSTNSTLLDDYIDATNDYTELTEVNVTGGRDHCLLNLLAHHMNFQFIYIEAPGRTQGSLRNDDTGEENETFTGGIGLLQNGLADFLLGDVSLSWERRKAVEFSFFTLADSGAFATHAPRRLNEAFAIIRPFKRDVWPYLILTVIFSGPIFYAIIAIPYKWHLPCQRRGEVRRLTQRQQQQRDVERADELFFHMAYVKEITGDNEMTRRLLRQQQQQQQQHQSEVCEQLTVGGRVQGLTEIPNNLFDKCIWFTVQLFLKQSACKELYHGYRAKFLMIVYWIAATYVLADVYSAQLTSQFARPPHEAPINTLQRLQTAMLRDGYQLFVEKESSSLEMLENGTEVFRQLYALMKLQNPDMEGYLIDSVEAGILLIADGLENKAVLGGRETLYFNIQQFGSKTFQLSHKLYTRYSAVAVQIGCPFLDSLNDVIIHLFEGGILDKMTNAEYATQSRMLGKEYNAMHPTNPTETNGNNEPPPNDDNRNTNGVGDANGKGEENAEATAKSLDSQIIQPLNLRMLQGAFIVLICGYAAATGILVLELCCHRLNWHFFE

RTQARLLRRYRWCSRKFRRITHLLFARIIR

>BcucIR18

MSFDLKRTHHIYLLILVVVKASSTLPPVIRIGALSSDMPDGPIDLAFKYAIQSINSDVNLLPDTKLTFDLQHVGKDDSFHACQKVCGQIETGIHAFFGPFNASLGAHIHSICDALDIPHMESRIDQKEANTEFSINLHPAKQYVNLAFEDIIRYLNWTKAGILYEKGFGVLQLRKFGQMYDIETYLRLVTPTTYVKILNELKDKEIHNLIIDTNAAHISILLKGILQLQMNEYKYHYLFTSFDIETFDLEDFKYNFVNITSFRLVDVGDVSVRNILKGMEAYNYDYNYKTTYYRKLRTIKTEPAVVYDSIYVFAIGLTSLEQSLTLGVSNASCANESPWDGGLSLINYINSVEWRGLTGPIQFKEGRRVKFKLDLVKLRQHSLVKVGEWTPQTRLNITEPSLFFDGGTMNVTLVVITILETPYVMMHYGKNYTGNERFFGFCVDILELIARDVGFDYILDLVPDRKYGAQDPFSGEWNGMVAQLMKYKADLAVGSMTITYARESVIDFTKPFMNLGISILFKVPSSPASRLFSFMNPLAYDVWIYVLAAYFLVSFTIYIVAKLSPIEWRDKYACDKKNPIITNQFTLANSFWFTIGTLMQQGSDINPKSLSTRIVSAIWWFFTLIIIASYTANLAAFLTVERMITPIENAEDLASQTEISYGTLESGSTMTFFRDSIIETYKKMWRNMENKKSIALTSTYEEGIRRVNQGNYAFLMESTMLDYIVQRDCNLTQIGGLLDTKGYGIATPKGSPWRDKISLSILELQEKGDIQMLYDRWWKNAGDTCVRKSNNKQTKANALGLDNIGGVFVVLFVGIGVAACVAVFEFWYNYRSRKRESVYYEKEHNAIESDMTAMALSAFNFADSTDKENIGEGHTEDQYFIQTHKQPCKHVTAYCCTEPPAQRSLCGEMLDEFRYALRCRDSHRRPALKRRCPTCHLFKDVKEFMDIETRTPTYVRGSTTNDLQIHHTQVKSTIEPQTSPSPIALYPCNAYKSNKIMD

>BcucIR19

MKTFNFNPHFILLICCIFRVATSSGAAADEFATAEQTGHSIAEEPTTQSSDAQIFMEYFRWHGVHNILLIVCPQDAATSEEHHKLKTLLRQFIANGFSTRIFNGADYDEGGGAPSAMKAQTEPEPVNMTVSPTVDSTRGAPELNRATYGPPRTFRSDNSTRRPLRLQLPALTYKSGILLWRFGSSCALNVLRWAAAPEHNYFTTNRFWLLHTDESTHISLLEDEDIFLPPDGEVRAVLQQPDAQLFALVDVYKIAADRPLRRTSVGGRDLRNAGDMLQALSKFGSAISYRQNLEGLTFKTGLVIAFPDMFTNIEDLSLRHIDTISKVNNRLTLELANKLNLRFNTHQVDNYGWHQPNGSFDGLMGRFQRYELDFGQMAIFMRLDRIAIVDFVAETYRIRAGIMFRQPPLSAVANIFAMPFASDVWIAILLLMIFTIGIFMVELVYSPHTHEIDILDCVVFVWGAMCQQGFYANLLNRSARVIIFTTFVSTLFLYTSFSANIVALLQSPSEAIQTLSDLTQSPLEIGVQDTVYNKIYFNESTDPVTNHLYHKKIAPKGENIFMRPPIGMEKMRTGLFAYQVELQAGYQIISNTFSEPEKCGLKELEPFQLPMIAVPTRKNFPYKELFRRQLRWQREVGLMNREELKWFPQKPKCEGGMGGFVSIGITECRYALGIFGFGLLLSAFSFILELAVNYAWNLVKKIHRNKKQREASGATNGYTGDFLY

>BcucIR20

MWPTQTHVTTLLQLLIQRYFAQFSSVLIVHDGRVDADSALQREYLEAVQLAFRNLSQQGRVIGLQWIDVSQLDGQGSSRDGDNSGFCGSSAGKDSRNNSVDNLAYDDELELCVLRAVDIVTEGFITILSDTVRFLHARYFATRNAELRLKDKFYLFLCEHEHPEELLSTEILQFYQHHLMVTPEKIGAPQRDNPQAATATRRKRNATKPTTVTTTNPLSTLTTATASAHRDINIQLWTQKFVGARGNLEALLLDAFLPNETFARNVELYPNKVSDLRGRNIRVGSITYIPYVVANYVPAGTGDVDALNSSDYSRTLSYLGSEAELMKSFCEVRNCHLRVEPYGADNWGVIYENESATGMLGDVYTQNVEVAVGCIYNWYNNITETSNVIARSSVAILGPSPAQFPAWRAIIMPFSTELWIFLILTILLCAAVMYFIRFVASTLDKWQRSLQQDFQHTAAIGQAILDMFAVFIQQPSGPTSLHTFAARFFLAMILCATITLENTYSGQLKSILTVPLFTEAVDTMEKWSKTDWTWSAPSIVWTQTIDSSHIEKEQIMSEKFVVHDYDFLYNASFRPDYGLGIERLMSGSFTFGDFITAPALETKIISKDDLYFDWTRAVSIRGWPLMPLFDEHISACIETGLFVHWERQNVAKYLDRQTQQIMLNLASGHINKSPPQKLTIENISGATFALIFGCLIASFVFLLELSIYNFNKFQDFRNKTK

>BcucIR21

MTVSRRALTARRQIFATTLTCGHTRFITILILLLSKWNLCVLTAANAYEFRAFADVLKQQHLQHAIIAYNSDTEQTQQQAGLLKDNALRALLNVASLHFYDVHQAKSTKNYTDFERLFYHDSPRVGIYVAQLEDVLLQQFVLGSNVISVDTIDAGGYRVRVDVGARFNNSRVWFIMSKQRAVATALANVRRVLTPLAVNISADITVGVRLVDNNTIELFDIYKIQKDWLEIEPKGYWSSTVGLKLNLRFHQTFVSRRRNFKGLTLVGGIVIREQPVGMDDLEYLNSLDYKNFDPMQRKTYQLMKLMEPVFDVSFQPILKNIWGEQSTNGSWDGVMKLLLSGEAEFSLCPMRFVMNRVHLIHYTIAVHTEFVFFIFRHPRRNDIRNIFFQPFVEEVWYTVIAIIVITTLLLQLHIHHENRFFINKDPHFQTRFDYAILSILEAFFMQGPANDAFNATSTRTLIFSVCLFSLLLQQFYGAFIVGSLLAASPRTITNLEALYNSSLEIGIENIPYNIDTFEKTTVPLGIAIYKERVCKNRERNIISIEEGAERIKKGGYAFHVSANRIYYILKELLTEKEFCDLQDIPFIPPYRIGIGITKTSPFREYFTTSIANFHTSGLLQYHDNQWQLPEMDCSLSQNHEVEVDLQHFLPALMFLISAMLLSLAVLILEIIYYNLEHSARLARLCPRIMPKPKLEFIN

>BcucIR22

MLPTNLLYSFYWSRMFNVIMQNYLLSTTTCIIWPENEDFSISWQQDKPPDAAIISIRLHDLAQSFSKDVVDFAAKREELLNDYVVLNPFVEKLTLSIEKSHCQNFIAFQMDIPIFIDAVINASRFSIWRSSNNKFLFVYNKDDLQQQLFENRFFEDQSAILLIERSITNPAVFDLKTNKFVGPRADNPKQLYLLDTFNAETNTFLHGNDLFPGKLSDLQGREVILAAFDYRPDVVLKYYPGAPSRDRAFAANDTNGDVELDGTEERILKTFCEKHNCLVDIDTSEADDWGIAYRNMTGEAALGMIARGKAEVGMSAMYTWYADYVALDMSMYIGRSGITCVVPAPKRLASWLLPIEPFQPALWAFVFVCLCVEIIALLFIDHARPIIIALSERMHASEEQQNSWVRNFQYAFTTTMLLFVSQSNKGTMVNFTPLRVMLFASFLNDIVITSIYGGGLSSILTVPSFGQAADSVERLYAFQLKWGADSEAWVAAIRDDESEIMKGLLRNFDIYSAEQLMELAQTEEMGFTIERLPFGHFAVQEHLTRSVLGKMKIMVEDIYFQYTVAFTARMWPMLEGFNEMVVMWHSSGLDKFWEWRIVADNLDGAIQKELMASQYSNLDDIGPVKLGMSNFVGMLLLWLLGITCAFLAFLAELLMDHMKRAKKVAEFEVIEIGEGSV

>BcucIR23

MTGFELILSAALCLSCTNLTNTRLPEGLIELDENGSVVTISPDLAVDEPSLDDAPLETVKTIIAKKEKTDKLKQWIKGRKLIIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQEQLEFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPTLSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYILIILRNRLTGDKEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNTNESLSMLTNMIRNSHAVFSKSSNDTFNLQNFVEKDGYVFVRDRPAINHVLYADYRYRKTISMNDEKLHCPFAMAKEPFLKKNRSFAYPMGSNLSELFDPKLLNLVESGIIKYLSTKDLPNAEICPQNLAGTERQLRNTDLMMTYYIMFAGFATAMVVFFTELIFRYLNNRHEGNKWARHGIGRTTNGLSVRAPRWLRQLETDSDKQRLTASPTESTITPPPPYQSIFSSNHRHHHEHEATHLSKDSSLHRWRRAGQFGIGAGGSNFGALAAGVGGGAGVLLGNGQLQGASGAGGMRRLINGRDYMVFRNPNGQSQLVPVRAPSAALFQYTYTE

>BcucIR24

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>BcucIR25

MDLKLFNLILYYFLKLNMKVLVSFNCWDVETQLAFYKLAAENSFYIDYINLNDSKALQGIEYRLIAKKPTMGIFMDLNCESAEELLSIASHERLFSDHFFWLIYDDMANVTYFRGLFKRQNLAVDAEITYAYLNTPEDDGNSSAIASYTLYDVYNNGYYHGGKLNMTLDREIYCNSEECYVNKYLSKLHLRNKYGNRNTLHDATLRLTVVVTKIPITSTPEQIFAFLRSVNGTNYDAIARFGFQALSILVEFLGCKTNHTFVNRWTINETHGGLIGALAIQSADLISTPFIPTAPRMEFFTIIAETSSFRSICLFRTPRNSGIQGDVFLKPFNTTVWSLFGVLLLLTAVVLWSIFRLERYRMYKRYIDYMPSLLATFLISFGSACSQGSDMVPGSIGGRMVFYTLYLLTFLMYNYYTSIVVSSLLGSPVKSDIKTMGQLADSSLEVGLEPLPFTLTYLNNSLLPEVRRFKHKIDSVPNPQAIWMPLEKGILRVRDQPGFVFGFEASTGFLLVKRYYKPYEICDLNEVLFRPEKSLYSAVHKNYSYKEITKQKVIRILETGVNLKLHRYWVQTTLECFDSNFIVEVGMEYMAPLFMLLACTYVLVLMILLCEILHKKYWTERKMRLENILFGQNWHNE

>BcucIR26

MELMLLNFILHHFLSANINSIVVLNCWSAQTQCDFSKMLNGHSLYSRFVNIESIDMSADFEYRYLLHNRPGMGAYLDMNCKSSEQVMGTLNRSHLFNAHYNWLLYDRIADLNNFRRLFADANLDVDAELTYAILKPTRLGPVSEINITSFVKYDVYNNGYNLGGKLNMTVDREVECNVTSCYIKRYLSQLHTRSKYGNRDKLHDITMRVSVVITQLPLSTPVPMMLDFLTSENNSDVDPISRFGYRIMLIFKDLFGCKMRYTFRSHWGINETYGGSIGDLISSEADFLSTPFLSTAARVKYVSPLLETGGFSSICIFRTPRSSSMKGEAFVQPFDGSVWLVFVILLIVVAIFLWYTFILEMRNCRTYLPYTPSLLSTGLLAFGSACYQGSHIVPSSVGGRLAYLSLYLATFIVYNYYTSILLSTLLGTPPKSDIKTLGQLADSSLTVSLEPLPYNYVYLNASQLPDVRRFVSRKIESRKNPQKVWIPVKEGVLRVRDEPGFVYVLETSYAYPFLERNFLPHQICDLNEVNLRPDKSLFTQLHKNSSYRELTRIRGIRMLETAVFRKHRRYWVRNKLNCVPSNYLFAVGMEYTAPLFLMLAFSYILCLLLLGLELLIKRLSA

>BcucIR27

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>BcucIR28

MIIMAYLQEPTKCHVIYITMPNLIIKTNMLLINFSFAGYEFSRTRYKCALSHILLIYYLSNFFCAAALPAVIPLGAIFTE

DQRDSSIEYAFKYAVYRVNKDKLLLSNTQLIYDIEYAPRDDSFRTTKKICRQLESGVQVIFGPSDPLLSAHVQSICETFGIPHIESRIELDASTKEFSINLYPSQRLMNLAHRDLMIFLNWTKTAIIYEDDLRIFNHQDLVHVTADIRTELYIRQTSPNTYRQVLRAIRKKDIYKIIVDTNPTNINAFFRAILQLQMNDHRYHYMFTTFDLEIFDLEDFKYNGVNITAFRLVDVESQRYKEVIEQMQKLPHSGLDYINDQPYIQTQSALMFDSVYSVAAGLMELDRSHLLTWHNISCKSDMPWRDGLSLYNYINSASMNGLTGRVHFAKGRRNIFQIDLLKLKREKIQKVGFWKPDVGVNITDATAFYDTHTSNTTLIVMTRQEKPYVMVKSDITQSGNDRFEGFCIDLLKAIATQVGFQYKIELVPDNMYGVFNPDTKVWNGIVRELMEKRADLAVASMTINYVRESVIDFTKPFMNLGIGILFKVPTSQPTRLFSFMNPLAMEIWLYVLAAYVLVSLTLFVMARFSPYEWNNPHPYVKESDIVENQFSVSNSFWFITGTFLRQGSGLNPKAVSTRIVGGIWWFFTLIIISSYTANLAAFLTVERMITPIEGASDLAEQTDISYGTLEGGSTMTFFRDSKIDTYQKMWQYMEARRSSVFVKTYEEGIKRVIEGNYAFLMESTMLDYAVQRDCNLTQIGGLLDSKGYGIATPKGSTWRDPISLAILELQEKGIIQILYDKWWKNTGDVCNRDEKSKESKANALGVENIGGVFVVLLCGLALAVVVAILEFCWNSKKTLQLTETQILCSEMAEELRYATHCHESKQRQSLKGSSAKFPPDSTYVPADTGSVIPNRGGVHYNYFD

>BcucIR29

MLNCGLIMEIIDINEKYKLDNVLTRESYGKSSVIADCICVNTSSLLSLASAGRYFNKTYQWFLWYKERKEVELLTLHDINYLGPNAQVTFINGSNSTIQIWDVYSIGKHLRNPLKLSLINFTPFTSYKAISKKLMKFQYSRSRNKFHGAVLRGATVIDLDNVINKTEIYSLLSDPVKHSGISAFTKYYYELLQILKEHINFRIEFRVSRGWAGRLDNTSYRLGFLGIMARNEADVGASGIFNRINRFADFDIIHQGWKFETAFVYCNTPDLSTKIKGTNFLIPFERDVWLAMIWLFAVMCLIYWLLQNVNVKLCFLKKEDLQEQRLMRFIKSGLLQGRQNRLLDEYSVDYLNSYIKETSSISNLFLIFIAAICQQSTNLISRSLAIRVLYFVIFLNTLLLYNYYTSSVVSGLLSSSVQGPANVDEIIASTLQLSFEDIGYYKILFKIIDF

>BcucIR30

MIIMAYLQEPTKCHVIYITMPNLIIKTNMLLINFSFAGYEFSRTRYKCALSHILLIYYLSNFFCAAALPAVIPLGAIFTE

DQRDSSIEYAFKYAVYRVNKDKLLLSNTQLIYDIEYAPRDDSFRTTKKICRQLESGVQVIFGPSDPLLSAHVQSICETFGIPHIESRIELDASTKEFSINLYPSQRLMNLAHRDLMIFLNWTKTAIIYEDDLRIFNHQDLVHVTADIRTELYIRQTSPNTYRQVLRAIRKKDIYKIIVDTNPTNINAFFRAILQLQMNDHRYHYMFTTFDLEIFDLEDFKYNGVNITAFRLVDVESQRYKEVIEQMQKLPHSGLDYINDQPYIQTQSALMFDSVYSVAAGLMELDRSHLLTWHNISCKSDMPWRDGLSLYNYINSASMNGLTGRVHFAKGRRNIFQIDLLKLKREKIQKVGFWKPDVGVNITDATAFYDTHTSNTTLIVMTRQEKPYVMVKSDITQSGNDRFEGFCIDLLKAIATQVGFQYKIELVPDNMYGVFNPDTKVWNGIVRELMEKRADLAVASMTINYVRESVIDFTKPFMNLGIGILFKVPTSQPTRLFSFMNPLAMEIWLYVLAAYVLVSLTLFVMARFSPYEWNNPHPYVKESDIVENQFSVSNSFWFITGTFLRQGSGLNPKAVSTRIVGGIWWFFTLIIISSYTANLAAFLTVERMITPIEGASDLAEQTDISYGTLEGGSTMTFFRDSKIDTYQKMWQYMEARRSSVFVKTYEEGIKRVIEGNYAFLMESTMLDYAVQRDCNLTQIGGLLDSKGYGIATPKGSTWRDPISLAILELQEKGIIQILYDKWWKNTGDVCNRDEKSKESKANALGVENIGGVFVVLLCGLALAVVVAILEFCWNSKKTLQLTETQILCSEMAEELRYATHCHESKQRQSLKGSSAKFPPDSTYVPADTGSVIPNRGGVHYNYFD

>CcapIRkainate2

MLKYFFSLLLACFCVKNAQALQPLNIGAIFFENELDLERTFIATVESINTARETNFKLLPLIRRVSETDGSLILQREVCDLIDNSVVAIFGPSSKADSDIVSVICNATGIPHIEFDISQEETGEEKINHQMTLSVFPAQLILSKAYSDIVHSNGWRKFTIVYDADDPKAPTRLQDLLQLRDIHNDVVRVRQFRRGDEYRVMWKSIKGERRVVLDCEPDLLIDLLNSSIPFDLTGQFNNLLLTNLEAHNANLEVLRDNETFALNITAARLKMNGNFYNTNPWQQASLYNLDELPEQPMRTLLHDLLYDAVNLFTNALRNVSYSYQIRPPRVRCDFSEYGRRQPWAMGRYIHRVMLATSGVNNTDYRTSDLQFGEDGQRINFGIEIFEPLDNYGIAFWDTKGQIVPQHVVVSNLKKLRYRVATRIGEPYFMEIPEMVEQNVTGNERYEGYAVDLIKELAERMNFEYIFVPVADQQYGKYDPTTKQWNGIIGEIINNDAHMGICDLTITQARRTAVDFTVPFMQLGVSILAYEQTVEPKALAFLDPFRAEVWIYVLIAIFVISFLFVVSARIAEDEWENPHPCNKDPELLENKWGLFNTFYLTAASIMQAGCDMLPKSAPFRTFTAMWWIIAVIIPNSYTANLAAFLTSSKMVNSITDLKSLVDQNEVKFGTLKGGSTYNFFSESNETVYRLAFEMMKNAEVSAYTKDNKEGVERVLSKAGKYMFLMETTSLEYNIERHCELRMVGEKFGEKHYAIAVPFGAEYRYNLSVNILKLSETGKLFEMKNKWWKNKDGACEKNDDGDSSAMGFAEVRGIFYTLFLGLFAAYFLGICEFLMHVHSRASEEKLRFKEVFVNEMRFVLRIWNNRKPVSCTPTASLSASSRRSSNRTIKSSKKKNSRQSSSSSKELAELASIKVKKNGRVVKEDDV

>CcapIRkainate1

MKLLLFTLFSLAVFQHTAQFTNNFDVVKIGAIFFHDEMKLVEAFDTAVRDINNLELDVRLEPIKHYLSSDDSLTLQELACDLIENGVAALIGPSSKASSDIVEVICNTTGIPHLQFDWYGEDIYGHRRNHKLTVNVAPVEQLLAKALLDIVRFKKLESFMIVYENSRNLGRMEYLFSWRKMNNKTGIRLWHFSRGDDYRVMWKQINSLREKYIVLDCPADILIEVLNASIIFNMTGQFNQWFLTSLDTHTANFSSSYFTAFLAAIYAVRLRPYIPPPVHDESDVFEEDEPDLISSARGKLLYDAVVLYFNAVRNQIRSQQYREPRARCHRGFWRTGLEIIEQMKILTARNVTPPFKTQKMQLNEYGTRDEFNLEIYNPLIDRITHIWNKNQNLVPYETLVAAKESKKKKFDEVQDYTVKRVKYIVATRLGEPYFMYRPEPEGVHYEGNDRFIGYAVDLIYKLAEELDFDFVFELVPDNNYGSQDPKTGEWNGIIRQLIDNSAQIGICDLTITQARRTVVDFTVPFMQLGVSILFYREPPPPKSPYGFLAPYSLDVWICLLLAIMVSALALVVVGRISHADWVSPIAHDPDPAEVENIWNLNNTLWLNVGSILCQGCDLLPRGSAMRVFTAFWWIFSLLLSQTYLANLAAFITASKMQSSVDSLHDLINQNKIQFGMLKGGSTQLLFSESNESEYRLAWSKMVSMKPDAFTASNAEGVDRVKRSEGRYAFLLETTTLQYYLARNSELKQIGTPFNEKHYGIAVPLHAPYRSTLSVGILKLSEKGELFKLKKKWFSANESSKNAKEAKNDESQYTMESVSGIFIVLLGGICVSLLIGILEFLWNVEQIVVQEKLPAMVVLKAELKFFIRFWETRKPLHTYAESRGSTSTGYSSYDQMASGSTVKKKKKKKKKKGKSNKVSSD

>CcapIRNMDA2C

MKGLIFSRKANKPRKNDETNRTPKRTVKTATATIAAACASTKTQTVKICKAAKTKTETAATTKTTPTHNTHNGNSKQLTTPLKCYKNNMQQQRSSCNGSVNNSYDNYSNNNNNSSSSKGDTSQCSRYVNYGSRHCGRKGDSSSLIPTYNQQQHHQEQQHQHCLAPCAELTHKMPATISVTTQKPNVSVCVHQQHQRMVPNPLEGVHHRQRLQQQHQLTTTTKPTATSLPPTNHHAQPQQRHKQKQQKQQKQEQPATTATTVIACLRKSWSTFLSSRLNFHQHLGHISLTVLVLASILIYSCPCTSALRLTNGGNTKTLSANKEQLNIGLIAPHTNFGKREYLRAINTAVQGLAKTRGAKLTFLKDYSFEPRNIHFDMMSLTPSPTAILSTLCKEFLQANVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQSEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAHPQFPIGMLGVHFDTSSAALMNEISNAIKIYAFGVEAYLTDPANRGRRLTTQSLSCEDEGRGRWDNGEIFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNTSVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPFSHRPSFKFGTIPYSHTDSTIHKYFKEMHHYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNRRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHIYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLASSSDLLNHHHLKERPPLLGNLSLAASAQDLYRWSYKTEIAEMETVL

>CcapIR25a

MQYAYTKSCRNIFIFFIFLKIILLGSFATAQTNQNINVFFINDADNEPASKAVTVVSTYLKKNPSYGISIQVDQVEANKTDAKTLLESICSKYAESIDRKQPPHVVFDATKSGIASETVKSFTQALGLPTISASYGQEGDLRQWRDIDENKQKYLLQVMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPSYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQIMSAFYFDLALRTFLAIKDMLQSGAWPKNMQYIGCDEFQGGNTPERNIDLRSAFSMIQEPTSYGLFELVTQPGKPFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEEIMKNLTADTVYRIFTVVQAPFIIKDDKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGVKDGKVDSVILGQAGKEYGKSGNTVLRPRFHQYPTTFKPRF

>CcapIRkainate4

MTGFELILSAALCLSCAQQNDTSLPAGLIELDANGEVVTISPELAASEPSLDDAPLETVKTLLAKKEKIDKLKEWIKGRKLVIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQDQLQFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPALSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYMLIILRNRLTGDDEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNNFVEKDGYVFVRDRPAINHVLYADYRYRKTISMNDEKLHCPFAMAKEPFLKKNRSFAYPMGSNLSELFDPKLLNLVESGIIKYLSTKDLPNAEICPQNLAGTERQLRNTDLMMTYYIMFAGFATAMVVFFTELIFRYLNSRHEANKWARHGIGRTTNGLSVRAPRWLRQLETDSDKQRLTSSSNESTITPPPPYQSIFSSTNRHQENHHKDATHLSKDRSLNRWRRAGQFGNMIGGASGSQFGALAGGGGAGVLLGNGHFSGGNGGAGGVRRLINGRDYMVFRNPNGQSQLVPVRAPSAALFQYTYTE

>CcapIR40a

MKVLLLNLILWLPAALVLGGITYNAERNISDVAIALSEIINALKPRQLAILSAPQFHFNTRHAPLPAAAEIPNDSQLESMQMDIDDFIYKLHKLNFKSVIYNKADLFFKFVEDSLLGSIESVNLIFSAPYELSARIQERKLSHRLSLFIFYWGAKHPPKANEVRFEEPMRAVVITRPRKKAFRIYYNQAVPDGVSNLRLVNWYDGDNLGLQKVPLLPNAASVYSNFNGRVFRVPVFHSPPWFWVNYDNDSINSTMLDDYIDSSNSYMELTEVNVTGGRDHCLLNLLAQHMNFQFVYIEAPGRTQGSLRIDDIGGENETFTGGIGLLQNGLADFLLGDVSLSWERRKAVEFSFFTLADSGAFATHAPRRLNEAFAIIRPFKRDVWPYLILTVIFSGPIFYAIIAIPYKWHLPCQGRAGKRANELVFHVAYIREITGDNEMAKRLLRRQRQQQQLLGETNAQQERLGDGALGMAEMPYNLFDKCIWFTVQLFLKQSCKELYHGYRAKFLMIVYWIAATYVLADVYSAQLTSQFARPPHEAPINTLQRLQTAMLRDGYQLFVEKESSSLEMLENGTEIFRQLYALMKQQNPDVEGYLIDSVEAGILLIADGLENKAVLGGRETLYFNIQQFGSKTFQLSHKLYTRYSAVAVQIGCPFLDSLNDVIIHLFEGGILDKMTNAEYATQSRMLGKEYNNQHPTSAAETNGNNEPPPSDDNRNGNGGSTDVGGKADESAGTATKSQDTQIIQPLNLRMLQGAFIVLLCGYAAATVILVLELCCHRLNWNFMERFQVRLLRRYRCVCRNFRRIAHSVFVRVFR

>CcapIR93a

MRFYATIWLFLLPFFLSLLPRNAEANDFSSFLTANASLAVVVDQEYMQRRGENILANFQKILSDTIRENLKNGGIEVKYFSWSQIRLKKDFLAAMTVTDCKSTWQFYESTQQTSILLIAITDANCPRLPLNRAIMIPIIDEGQELSQIILDIKVQQILRWKTAAVLLDQTILSDNPTLVESVVHESVKNHITPFSLLLYRIDDSLRSQKKRTVIRQMLMNFQDNVQTPRQFIVLSKFYEDIVEIAASLKLFHVYNQWLFFVLNEELRNYDAVSVTQNLEEGANIAFILNATEPTGTSSINCTIAELSMAFVTSISRMIVEEQSIYGEISDEEWEAIRYTKQEKQDEILGYMKDYIRMNSKCASCSHWKIETALTWGKSEEHRRYQTNLELRDTRNRNFEFIDVGYWTPTLGFITHEVMFPHIVHSFRNITMDILTVHSPPWQILERDSRGDIVRHSGITMEILKEMSRMLNFSYILHEVKTNPAELAAEEMQQTSNLTDDLLGSLTFNIPYQVIETMQSSRYFMAALAATIDEPDKKSFNYTVPISVQTYTFIARQPDEVSRIYLFTAPFTTEIWGCLVAIIIITAPVLYFINRLVPMEHLRITGLSTLNSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFSSNDVRQFGLRNGSYFEKYSTITTRDDFRDFVQRAIIYNNVQGEDIGAVQDGKRVNVDWRVNLQLIVQRQFEKNKECKFALGRDSFVDEQIGLMVPKKSPYLQLINDQIMHMFRMGFIERWHQINLPSMDKCNGHGGMRQIMNHKVNLDDMQGCFMVLLFGFMIALFVLFVEYWYRWYFVEKKKATFTS

>CcapIRdelta-1

MTGFELILSAALCLSCAQQNDTSLPAGLIELDANGEVVTISPELAASEPSLDDAPLETVKTLLAKKEKIDKLKEWIKGRKLVIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQDQLQFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPALSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYMLIILRNRLTGDDEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNTNESLSMLTNMIRNNHAVFSKSSNDTFNLQNFVEKDGYVFVRDRPAINHVLYADYRYRKTISMNDEKLHCPFAMAKEPFLKKNRSFAYPMGSNLSELFDPKLLNLVESGIIKYLSTKDLPNAEICPQNLAGTERQLRNTDLMMTYYIMFAGFATAMVVFFTELIFRYLNSRHEANKWARHGIGRTTNGLSVRAPRWLRQLETDSDKQRLTSSSNESTITPPPPYQSIFSSTNRHQENHHKDATHLSKDRSLNRWRRAGQFGNMIGGASGSQFGALAGGGGAGVLLGNGHFSGGNGGAGGVRRLINGRDYMVFRNPNGQSQLVPVRAPSAALFQYTYTE

>CcapIRNMDA2B

NNSSSSKGDTSQCSRYVNYGSRHCGRKGDSSSLIPTYNQHQHHQEQQHQHCLAPCAELTHKMPATISVTTQKPNVSVCVHQQHQRMVPNPLEGVHHRQRLQQQHQLTTTTKPTATSLPPTNQHAQPQQRHKQKQQKQQKQEQPATTATTVIACLRKSWSTFLSSRLNFHQHLGHISLTVLVLASILIYSCPCTSALRLTNGGNTKTLSANKEQLNIGLIAPHTNFGKREYLRAINTAVQGLAKTRGAKLTFLKDYSFEPRNIHFDMMSLTPSPTAILSTLCKEFLQANVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQSEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAHPQFPIGMLGVHFDTSSAALMNEISNAIKIYAFGVEAYLTDPANRGRRLTTQSLSCEDEGRGRWDNGEIFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNTSVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPFSHRPSFKFGTIPYSH

TDSTIHKYFKEMHHYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNRRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHIYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLASSSDLLNHHHLKERPPLLGNLSLAASAQDLYRWSYKTEIAEMETVL

>CcapIRNMDA1

MKVLNEINVVCLLTCSIFLGVTAQKHIQHSDNPSTYNIGGVLADPDSEAYFRRIISHLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIEKRVYAVVVSHEQTSGDLSPAAVSYTSGFYQIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEIMFHFGYTKVIIIHSSDTDGRAILGRFQTTSQTNYDDIDVRATVEMIVEFEPKLDSFTENLIDMKTAQSRVYLLYASTEDAQVIFRDAALYNMTEAGHAWIVTEQALHANNTPVGVLGLVLEHANSDKGHIRDSVYVLASAIKEMMSNETITEAPKDCGDSGVNWESGKRLFQYLKTRNITGDTGQVAFDDNGDRIFAGYDVINIHEKQKKHVVGKFYYDGEKAKMRLRINDSEILWPGKQKKKPEGIMIPTHLKILTIEEKPFVYTRRLTDDEVTCDEDEIPCPLFNATDGSENENCCRGYCIDLLNALSHRINFTFDLALSPDGLFGHYTLKNVSSSSSGAIKSRKEWNGLIGELVNERADMAMPLTINPERAEFIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLTHAESNEEKALNLSSAIWFAWGVLLNSGIGEGTPRSFSARVLGMFWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYDTAEQAIQDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEALDKHWIFHGNAQQCELFEKTPNTLGLQNMAGVFILVAAGVAGGVGLIIVEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTLRASLAMQRQYNVGLNANPGTISLAVDKRRYPRMGPRAPEQAWKTDADILRNRRYLVEATKGGHTPVVHMPILGKMRPPTNMLPPRYSPAYTSDVSHLVV

>BcorIR8a

MWLLQKLVILFTFGYVCANELKIAFWIDPLQADIELDVASTVKEIEALQLGTKIQYYVVVITNVGKKKEAKNMEKLCEHLATDGVSVVIDFTYHIWREGLELLRTYQIPFLRVDRILAPYFKMFSQFVLQKSGHECIMIFQNARDTEEALIQIVEGYPFRSLIMNAFDNKQDFIKRLRKIRPMPSCYAIFADGTAMNSIFDRISKANFFERPREWHFVYLDPRDRVFKFKKQVDYATKFTINPKTLCRALRMKDTYCLSGFSFQRAMILEILRGLIELKQANLYWLPSFVMECNATSPIENGTAGLDILEQFPMSEFLDFTTDVTFADDEFDHVPRLTYTPTININLYSSEHDAVTELAIWQNDHLRKINETISPPRRFFRIGTVEAIPWNYMKRDPKTDELILDSFGNPIWEGFCIDSIQKLSERLDFGYMLVPPTSGEFGRRDVVNDVWDGIVGDLVTGETDFAVTALKMYSEREEVIDYIAPYFEQTGISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSALMIWLLDKYSPYSYRNNRAAYQYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVEGSSTHQYFINMKFAEDTLYRMWKELTLNVTEDFQRYRIWDYPIKEQYGTILLAINGSEPVKNAKEGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEIFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEDLKAKYWNTSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIIYYRRKYSTMQRFSEITKVKPASGTSIKQLLPKKKSKKRIAVWHTSTSKRDNSPEHKTPPPAFDAVKFRGKKVPPNITLGGQEFKPGRAGQRQLSESLDSAEYRNEGIPNRDDELPPYTE

>BcorIR92a

MWPTHTQTHVTTLLQLLIQRYFAQFSSVLIVHDGRVDANSALQREYLEAVQLAFRNLSQQGRLIGLQWIDVSQLDGDGAGKGSCRSSNCGDSYNNTCADNMAYNDELELCVLRAVDIVTEGFITILSDTVRFLHARYFATRNAELRLKDKFYLFFCEHERPEELLSTEILQFYPHHLMVTPETLTAQQSDNPQGFPNKTKVNSKYTHQITNTAATTIPTKPTTTTTPLSTFATASPSAHRDINIQLWTQKFVGASGNLEALLLDAFLPNETFARNAELYPNKVNNLRGRTIRVGSVTYIPYVVANYVPAGKGDVDALNSSDYSRTISYLGSEAELMKSFCEVRNCHIRLEPYGADNWGYIYENESATGMLGDVYTQNVEVAIGCIYNWYNNITETSNIIARSSVAILGPAPAQFPAWRANIMPFSNALWIFLILTILLCAAVMYLIRFVASLLDKWLRGVKCEFQHLTAFGQATLDMFAVFIQQPSGPTSLNTFAARFFLAMILCATITLENTYSGQLKSILTVPLFTEAVDTMEKWSKTDWTWSAPSIVWIQTIDSSNIEKEQIMSDKFEVRDYDFLYNASFRSDYGLGIERLMSGSFSFGDYVTAPALETKIVSKDDLYFDWTRAVSIRGWPLMPLFDKHIRACVETGLFVHWERKIVAKYLNQQTQEIMLNLASGHINKLPPQKLTIENISGATFALFFGCLIASFVFMLELTAYYFNKFQGLCIQRNGKSEN

>BcorIR84a

MAVPIGATTARRQTFASALLCGRSSLITTLILLLSKWNLCVATATNAYEFDAFADVLKQQHLHHAIIAYNGDTEQAQQQAGLLKDNALRALLNVASLQFYDVHQAKSATNATDFQSIFYHDSPRVGIYVAQLEDVLLQQYVLGSNVISVDTIDAGGYRVRVDVGSRFNSSRVWFIMSKQRKVTAALANVRRVMTPLPVNISADITIGVRLDDNNTIQLFDIYKIQKDWLDIEPKGYWSSAEGLKLNLRFHRTFVNRRRNFKGLQLVGGIVIREQPADMTELDYLNSLYHKNFDPMQRKTYQLVKLMEPVFDVSFQPVLRKTWGEQAPNGSWDGVMKLLLSGEAEFSLCPMRFVPNRVHLIHYTIAVHTEFVFFIFRHPHRNDIRNIFFEPFVEEVWYTVIAIVVLTILLLQLHLHHENRFFLNKDPHFQNRFDYAIFSILEAFFQQGPSTDAFTATSTRTLIFSVCLFSLLLQQFYGAYIVGSLLSVSPRTITNLEALYNSSLEIGIENIPYNIETFEKTTVPLGMAIYKERVCKNRERNILYIEEGAERIKKGGFAFHVSANRMYYMLKELLTEKEFCDLQDVPFIPPYRIGIGITKSSPFREYFTTTIAKFHTSGLLQHNDNQWQLPQMDCSLSQNYEVEVDLQHFLPALLFLVSAMLLSLAVLILEIIYYNLEKSTKLARLCPRIMPKPKLEFIN

>BcorIR76a

MSVLSPAVNHWTALLNFIMQTYFIDSHATCILWHHDFPFELQTPANGEFIQYINIWPDNLSQSLQQDIYNFTAFAETQLAHGVQPDALVQKLAIAIRESHCETFVAFQEDILSFARSFYNASRISVWRSLRNKFLFAYRKDLQQDTTAYFDDFLFMDQPNVLIVEAECGNCSTFALKTNKFIGPLAEHPEQLYVLDRYNGADGKFELGVDLYMDKVQNLQGREVTVGVFDYRPFAVVDYERQPQIKDHSPENLRGMAHVDGTEVRMLLALCEVVNCTVNADTSQDDWGTSYANLTADGIFGLVTSRKSHYAVGALYFWPDDYRYLDMSLFIGRSGVTCLVPSPHRLTSWLLPLRPFQLTLWLGVFACLGVEALALFFTRHLAPSDTEPQYGLMESFQFGYITTLKLFVSQGSDYVVNSHTVRMVLFACYMMDTIVTSVYGGGLSAILTLPTLEEASDSVERLYRHGIPWTATSPDWVISLKGADDDPIVEKLLQRYHVYTYEQLTEFAKTENMGFILERLAFGHFGNVDFLTDESFKRLKLMIDDIYYQYCYAFVPRLWALLPKLNDVIMQVHSTGLDIFWEWEVAATYMDGQQQEEIQASMYMDFDVGPVKLDMGNFIGLVLPLIIGSVFSIIAFIGELVYYKYTQKKAQAVIDVN

>BcorIR75d

MTPHFMLLICHIFLVAISSGAEPSDFAGAKQLGNSTLKEPTGEGYDAQIFMEYFRWHGVHNIMLIVCPQDVGTSEKHHKLKSLLRQFIAHGFSTRVFNGQDYDDDNESTRSAVQAQAEADPFNTTHTSIADSTSAAPAMSHFTFGPPRTFRSDNNTRRPLRLQLPALTYKSGILLLEFASACSINVLRWAAAAEHNYFTTNRFWLLFTDEPTHISLLDDGDIFLPPDGEVRVMLWQPGVQFFTLVDVYKVAADKPLRHTLVGGRELRDAEDMLQALGKFGSAISYRQNLEGITFKTGLVIAFPDLFTNIEDLSLRHIDTISKVNNRLTLELANKLNLRFNTHQVDNYGWHKPNGSFDGLMGRFQRYELDFAQMAIFMRLDRIAIVDFVAETYRIRAGIMFRQPPLSAVANIFAMPFASDVWIAILLLMIFTIGIFIVELVYSPHLHEMDILDCVVFVWGAMCQQGFYANLLNRSARVIIFTTFVSTLFLYTSFSANIVALLQSPSEAIQTLSDLTQSPLEVGVQDTQYNKIYFNESTDPVTNHLYRKKIAPKGENIFMRPAVGMEKMRTGLFAYQVELQAGYQIISNTFSEPEKCGLKELEPFQLPMIAVPTRKNFPYKELFRRQLRWQREVGLMNREELKWFPQKPKCEGGMGGFVSIGITECRYALGIFGFGLLLSAFSFILELVANYAWNLAKKIHRNKKQRMASSAADGYQGNFVH

>BcorIR75a.2

MEQLLLNFILHHFLNANVNSIVVLNCWSLQTQCDFSKMLNEHSLYSRFVNIETIDMSNDFEYLYLRHKRPGLGVYFDMNCKRAEQLLSILNHSRLYNGHYKWLLYDHTADIRNFKRLFDDANIGVDAELTYANLKPTLLGAFTDVNLTSFVKYDVYNNGYFLGGKLNMTVDCEVECNMKTCYTQRYLSELHTRSKYGNRDKMPDITMRVSVVVTKLPLSTPVPVLIDFLKSENNSNVDPITRFGFRILLIYKDLFGCKMRYTFRSHWGINETYGGGIGDLVTGKADFLSTPFLSTAERIKHVTPLIETGGFSSVCLFRTPRSSSTKGEAFLQPFDGTVWLVFVVLLLVVAVLLWRIFALELCNLRTHLPYKPSLLATVLLAFGSACYQGSSIVPASAGGRMAYFSLYFATFIVYNYYTSILLSTLLGTPPKSDIKTLGQLADSALPVGLEPLPYTYVYLNGSQLPDVRRFVYRKIELSKNPQKVWIPVEEGVLRVRDEPGFVFVLETSYAYPFLERNFLPHQICDLNQVNFRPDKSLFTQLHKNSSYKELTRLRAIRMLETGVFHKHRRYWVRNKLNCVPTNYLFAVGMEYTAPLFLMLVFSYLICLVILGVELLVKRF

>BcorIR25a

MPRAYLKFYNNIVIFLKILSLVSLATGQTNQNINVFFINDADNEPAAKAVTVVSTYLKKNPSYGISIQIDQVEANKTDAKTLLESICSKYAESIDRKQPPHVVFDTTKSGISSETVKSFTQALGLPTISASYGQEGDLRQWRDMDESKQKYLLQVMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPTYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQIMSAFYFDLALRTFLAIKDMLQSGAWPKNMEYIGCDEFQGGNTPERNLDLRTAFTMIQEPTSYGVFELVTQPGKSFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEDVMKNLTADTVYRIFTVVQAPFIIKDEKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWVFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKFKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKTIDSVILGQAGKEYDKGGNTVLRPRFHQYPTTFKPRF

>BcorIRkainate 2

MARPYRQSMLHFITPTRCSRITLILLLALSCLQIAASQKINVGLIYESDNPDMEKIFQIAIDKANEESGGALELHGIAVAIEPGNAFETSKKLCKMLRQNLVAVFGPTTDLAAKHAMSICDAKELPFIDTRWDFAVQMPTVNLYPHASQLAVALKDLVVALEWTDTFTIIYETGEFLPTVNQLLEMYGTMGPTITVRRYELDLNGDYRNVLRRIKNSGDYSFVVVGSMATLPEFFKQAQQVGLMTDDYRYIVGNLDFQTMDLEPFQHGDTNITGIRLVSPDEKLVQDIAKTLYETEEPFQNVSCPLTTSMALVYDGVQLLAETFKHVMFRAVPLSCNDASSWDKGYTLVNYMKSLSLTGLTGEVKFDYEGLRTDFVLDVIELTMSGMQKIGEWKTEEGFFANRPPPKIVEVDQRSLVNKSFVVITAISEPYGMLKETPAKLEGNDQFEGFGIELIEELGKKLGFTYTFRLQVDNKYGSFNPKTGKYDGMMLEIIEGRADMGITDLTMTSIREEGVDFTIPFMNLGIAILFRKPMKEPPKLFSFMSPFSGTVWMWLGIAYMSVSLTLFILGRISPTEWDNPYPCIEEPTELENQFSFPNCLWFSIGALLQQGSELAPKAYSTRTVASIWWFFTLILVSSYTANLAAFLTIESLSSPIENAEDLANNKGDVKYGAKMGGSTYTFFQDAKYPTYQKMYEFMRDHPEYMTSTNAEGVDRVENENYAFLMESTTIEYITERRCSLTQVGSLLDEKGYGIAMRKNWPYRDILSQAVLELQEQGVLTKMKTKWWKEKRGGGACSDTSKEGGAVPLELSNLGGVYLVLIVGSCFGVLVAFLEMVLGVKERSDENKVSFKTELIEEFRFVMQCSGNTRPVKYPKNSSRSRSRSSRSRSHSRSSSKSSTLSVDSLPMDESKLHHISEHTKHAK

>BcorIRNMDA

MPVLNGINVVYLLFCGIHLGVIAQKHSQHSDNPSTYNIGGVLADPESESHFRTIISNLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIEKRVYAVVVSHEQTSGDLSPAAVSYTSGFYQIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEIMFHFGYTKVIIIHSSDTDGRAILGRFQTTSQTNYDDIDVRATVEMIVEFEPKLDSFTEHLIDMKTAQSRVYLLYASTEDAQVIFRDAAINNMTEAGHAWIVTEQALHANNTPVGVLGLVLEHANSDKEHIRDSVYVLASAIKEMMSNETITEAPKDCGDSGVNWESGKRLFQYLKTRNITGKTGQVAFDDNGDRIYAGYDVINIHEKQKKHVVGKFYYDPEKAKMRLRINDSEILWPGKQKKKPEGIMIPTHLKILTIEEKPFVYTRRLTDDEVNCDEDEIPCPLFNATDGSENENCCRGYCIDLLNALSHRINFTFALALSPDGQFGHFTLKNVSSSSSGAITSRKEWSGLIGELVNERADMAMPLTINPERAEFIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLSHTDSNEEKALNLSSAVWFAWGVLLNSGIGEGTPRSFSARVLGMFWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYDTAEQAIQDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEALDKHWIFHGNAQQCELFEKTPNTLGLQNMAGVFILVAAGVAGGVGLIIVEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTLRASLAMQRQYNVGLNATPGTISFAVDKRRYPRMGPRAPEQAWKSDADILRNRRYLDDATKGGHSPAVHMPILGKMRPPTNMLPPRYSPAYTSNVSHLVV

>DmelIR25a

MGSRLDWGVADVALWAIADQIDYHQVFINEVDNEPAAKAVEVVLTYLKKNIRYGLSVQLDSIEANKSDAKVLLEAICNKYATSIEKKQTPHLILDTTKSGIASETVKSFTQALGLPTISASYGQQGDLRQWRDLDEAKQKYLLQVMPPADIIPEAIRSIVIHMNITNAAILYDDSFVMDHKYKSLLQNIQTRHVITAIAKDGKREREEQIEKLRNLDINNFFILGTLQSIRMVLESVKPAYFERNFAWHAITQNEGEISSQRDNATIMFMKPMAYTQYRDRLGLLRTTYNLNEEPQLSSAFYFDLALRSFLTIKEMLQSGAWPKDMEYLNCDDFQGGNTPQRNLDLRDYFTKITEPTSYGTFDLVTQSTQPFNGHSFMKFEMDINVLQIRGGSSVNSKSIGKWISGLNSELIVKDEEQMKNLTADTVYRIFTVVQAPFIMRDETAPKGYKGYCIDLINEIAAIVHFDYTIQEVEDGKFGNMDENGQWNGIVKKLMDKQADIGLGSMSVMAEREIVIDFTVPYYDLVGITIMMQRPSSPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDEEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFERMSNIEQMFYEIWKDLSLNDSLTAVERSKLAVWDYPVSDKYTKMWQAMQEAKLPATLDEAVARVRNSTAATGFAFLGDATDIRYLQLTNCDLQVVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDEALAKCDKPEDQSDGISIQNIGGVFIVIFVGIGMACITLVFEYWWYRYRKNPRIIDVAEANAERSNAADHPGKLVDGVILGHSGEKFEKSKAALRPRFNQYPATFKPRF

>DmelIR8a

MELPLLVLLLALRFAGSEVLKITFWIEPVQRAEFDTDIAMVLKELDALRLDVKVDDTTLTLTRSEDGLDMQRFCEILSTVGASAVIDLTYSHWEEGYNLVRSLGIGYVRLERIMRPFLDMFGDFMRQKRANNVAMVFMNARDAVEAMQQMLVGYPFRTLIMDASQTDPGQHFLERIRSLRPAPTYIALFARAAAMNGIFEKVQKADLFQRPLEWHFVFLDTRDRVFKYRRQAELCTRFTLNPRAICRSMPMPDLYCGSGFTMQRAMLLNVLRSLINAAQVSPGYPLAIYQDCNATASSSEVSDPLEKDDYNWLDMVHWSNFLAYAPPLPHIQDQFQSPVPGLTFAVNISAGYYSSEHEAKTDLAAWSSVGEMRLLNETISPARRFFRIGTAESIPWSYLRREEGTGELIRDRSGLPIWEGYCIDFIIRLSQKLNFEFEIVAPEVGHMGELNELGEWDGVVGDLVRGETDFAIAALKMYSEREEVIDFLPPYYEQTGISIAIRKPVRRTSLFKFMTVLRLEVWLSIVAALVGTAIMIWFMDKYSPYSSRNNRQAYPYACREFTLRESFWFALTSFTPQGGGEAPKAISGRMLVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVKDSDTHQYFVNMKFAEDTLYRMWKELALNASKDFKKFRIWDYPIKEQYGHILLAINSSQPVADAKEGFANVDAHENADYAFIHDSAEIKYEITRNCNLTEVGEVFAEQPYAVAVQQGSHLGDELSYAILELQKDRFFEELKAKYWNQSNLPNCPLSEDQEGITLESLGGVFIATLFGLVLAMMTLGMEVLYYKKKQNALEITQVRPVNDSSGSGGNSSTAPPTATSTTKQAWHIPVLEAEEKPAKVSPPPSFETATFRGKKLPARITLGD

GKFKPRHGLYARRNLGASDSHSGYME

>DmelIR84a

MIKLQVKVISWPLIILTAFLRVLQIESINTNFLELAAFEDFLRSEHLSHVLVVRGDDADGDWKIECHQKLLANYRVQFYRPEMSANFEDLMFYGSPRTAVLVLNSEHVLVRRQVFGVASEAGYFNNSLAWFILGSGRESLPVEQLIDQLLSGYRMGIDADITVALRGPDNASMLFYDVYRISRQANTPLIIEKKGLWTHSGGYQKFGNFKNTWVIRRRNFLNVTLIGSTVLTEKPPGFGDMEYLADDKQLQQLDPMQRKTYQLFQLVERMFNLSLAISLTDKWGELLDNGSWSGVMGQVTSREADFAVCPIRFVLDRQPYVQYSAVLHTQNIHFLFRHPRRSHIKNIFFEPLSNQVWWCVLALVTGSTILLLFHVRLERMLSNMENRFSFVWFTMLETYLQQGPANEIFRLFSTRLLISLSCIFSFMLMQFYGAFIVGSLLSESARSIVNLQALYDSNLAIGMENISYNFPIFTNTSNQLVRDVYVKKICKSGEHNIMSLQQGAERIIQGRFAFHTAIDRMYRLLLELQMDEAEFCDLQEVMFNLPYDSGSVMPKGSPWREHLAHALLHFRATGLLQYNDKKWMVRRPDCSLFKTSQAEVDLEHFAPALFALALAMVASALVFLLELFLHWLPDFRRRLGTMST

>DmelIR76a

MENLLVESYYFSTVLSFFAQQFFADSHATCIFWHPAFDFRLETVHPMPLIIMDWHRWANRSDQDVYDYKIKEDEFEGKGIPYNDWTLRLTVAIERSHCETFIAFQEQIPEFARYFYHASIYSIWRSLRNRFMFVYTKEFEDKKDSYLSGYIFQDQPNILVITSQYLNSSTFEIKTNRFVGPRNFNKNPEPVEFYILQRFDAKGTKATWETQSAMSSKMRNLKGREVVIGIFDYKPFMLLDYEKPPLYYDRFMNTTDVTIDGTDIQLMLIFCELYNCTIQVDTSEPYDWGDIYLNASGYGLVGMILDRRNDYGVGGMYLWYEAYEYMDMTHFLGRSGVTCLVPAPNRLISWTLLLRPFQFVLWMCVMLCLLLESLALGITRRWEHSSVAAGNSWISSLRFGCISTLKLFVNQSTNYVTSSYALRTVLVASYMIDIILTTVYSGGLAAILTLPTLEEAADSRQRLFDHKLIWTGTSQAWITTIDERSADPVLLGLMEHYRVYDANLISAFSHTEQMGFVVERLQFGHLGNTELIENDALKRLKLMVDDIYFAFTVAFVPRLWPHLNAYNDFILAWHSSGFDKFWEWKIAAEYMNAHRQNRIVASEKTNLDIGPVKLGIDNFIGLILLWCFGMICSLLTFLGELWRGQG

>DmelIR64a

MHWWLLVFLPLSCQGLPEHELLELELDYGLAEPQRTSLLQSSLILQFSQDYKHIPRITYFTCQKPHLQTPNQIPNAAEHRDAFAAKNFQLIKSLYESELFVRIVLLDVLAQSPTSGRPNRPGNGPTGGFSQTPSQAQSNSEWLEGVLRMEALRQIAVVDLACGAVSRRFLELASAKMLYSEKFHWLLIEDFAWHGRTQTAEGSGKRDDGEMEEEEPPGQQIQATDDEDLPSIESFLGGMNLYMNTELTLAKRMSEAAHYTLFDVWNPGLNYGGHVNLTEIGSFTPTEGIQLHTWFRTTSTVRRRMDMQHARVRCMVVVTNKNMTGTLMYYLTHTMSGHIDTMNRFNFNLLMAVRDMFNWTFVLSRTTSWGYVKNGRFDGMIGALIRNETDIGGAPIFYWLERHKWIDVAGRSWSSRPCFI

FRHPRSTQKDRIVFLQPFTNDVWILIVGCGVLTVFILWFLTTIEWKLVPHDGSALIKPKGGAPPRHHYQQQQQQEQVEAPVRPITAVSVVVSKEKVEEKQEEYEDSTPIDAGTLWQRCYQKLNKYIKDRKAKQKKAPERVGLFLESVLFFVGIICQQGLGFSTSFVSGRCIVITSLLFSFCIYQFYSASIVGTLLMEKPKTIKTLSDLVHSSLKVGMEDILYNRDYFLHTKDPVSMELYAKKITSVPTTKENEADEDEPVDPNPVSTDPAKSYRDIVHSHETGAHAKDNAASNWLDPETGLLRHLGFAFHVDVAAAYKIIAETFSEQDICDLTEVSMFPPQKTVSIMQKNSPMRKVISYGLRRVTETGILTYHFNVWHSRKPPCVKKIETSDLHVDMDTVSSALLILLFSYAITLMILGTEILYSKWHNRIQLKWVGAT

>DmelIR93a

MNPGEMRPSACLLLLAGLQLSILVPTEANDFSSFLSANASLAVVVDHEYMTVHGENILAHFEKILSDVIRENLRNGGINVKYFSWNAVRLKKDFLAAITVTDCENTWNFYKNTQETSILLIAITDSDCPRLPLNRALMVPIVENGDEFPQLILDAKVQQILNWKTAVVFVDQTILEENALLVKSIVHESITNHITPISLILYEINDSLRGQQKRVALRQALSQFAPKKHEEMRQQFLVISAFHEDIIEIAETLNMFHVGNQWMIFVLDMVARDFDAGTVTINLDEGANIAFALNETDPNCQDSLNCTISEISLALVNAISKITVEEESIYGEISDEEWEAIRFTKQEKQAEILEYMKEFLKTNAKCSSCARWRVETAITWGKSQENRKFRSTPQRDAKNRNFEFINIGYWTPVLGFVCQELAFPHIEHHFRNITMDILTVHNPPWQILTKNSNGVIVEHKGIVMEIVKELSRALNFSYYLHEASAWKEEDSLSTSAGGNESDELVGSMTFRIPYRVVEMVQGNQFFIAAVAATVEDPDQKPFNYTQPISVQKYSFITRKPDEVSRIYLFTAPFTVETWFCLMGIILLTAPTLYAINRLAPLKEMRIVGLSTVKSCFWYIFGALLQQGGMYLPTADSGRLVVGFWWIVVIVLVTTYCGNLVAFLTFPKFQPGVDYLNQLEDHKDIVQYGLRNGTFFERYVQSTTREDFKHYLERAKIYGSAQEEDIEAVKRGERINIDWRINLQLIVQRHFEREKECHFALGRESFVDEQIAMIVPAQSAYLHLVNRHIKSMFRMGFIERWHQMNLPSAGKCNGKSAQRQVTNHKVNMDDMQGCFLVLLLGFTLALLIVCGEFWYRRFRASRKRRQFTN

>DmelIRGluRIIA

MRLCPVVIYAFIIIIGFLEGIIALGGDDRNEITVGAIFYENEKEIELSFDQAFREVNNMKFSELRFVTIKRYMPTNDSFLLQQITCELISNGVAAIFGPSSKAASDIVAQIANATGIPHIEYDLKLEATRQEQLNHQMSINVAPSLSVLSRAYFEIIKSNYEWRTFTLIYETPEGLARLQDLMNIQALNSDYVKLRNLADYADDYRILWKETDETFHEQRIILDCEPKTLKELLKVSIDFKLQGPFRNWFLTHLDTHNSGLRDIYNEDFKANITSVRLKVVDANPFERKKTRLTKVDQILGNQTMLPILIYDAVVLFASSARNVIAAMQPFHPPNRHCGSSSPWMLGAFIVNEMKTISEDDVEPHFKTENMKLDEYGQRIHFNLEIYKPTVNEPMMVWTPDNGIKKRLLNLELESAGTTQDFSEQRKVYTVVTHYEEPYFMMKEDHENFRGREKYEGYAVDLISKLSELMEFDYEFMIVNGNGKYNPETKQWDGIIRKLIDHHAQIGVCDLTITQMRRSVVDFTVPFMQLGISILHYKSPPEPKNQFAFLEFAVEVWIYMIFAQLIMTLAFVFIARLSYREWLPPNPAIQDPDELENIWNVNNSTWLMVGSIMQQGCDILPRGPHMRILTGMWWFFALMMLSTYTANLAAFLTSNKWQSSIKSLQDLIEQDKVHFGSMRGGSTSLFFSESNDTDYQRAWNQMKDFNPSAFTSTNKEGVARVRKEKGGYAFLMETTSLTYNIERNCDLTQIGEQIGEKHYGLAVPLGSDYRTNLSVSILQLSERGELQKMKNKWWKNHNVTCDSYHEVDGDELSIIELGGVFLVLAGGVLIGVILGIFEFLWNVQNVAVEERVTPWQAFKAELIFALKFWVRKKPMRISSSSDKSSSRRSSGSRRSSKEKSRSKTVS

>DmelIR75a

MQLVQLANFVLDNLVQSRIGFIVLFHCWQSDESLKFAQQFMKPIHPILVYHQFVQMRGVLNWSHLELSYMGHTQPTLAIYVDIKCDQTQDLLEEASREQIYNQHYHWLLVGNQSKLEFYDLFGLFNISIDADVSYVKEQIQDNNDSVAYAVHDVYNNGKIIGGQLNVTGSHEMSCDPFVCRRTRHLSSLQKRSKYGNREQLTDVVLRVATVVTQRPLTLSDDELIRFLSQENDTHIDSLARFGFHLTLILRDLLHCKMKFIFSDSWSKSDVVGGSVGAVVDQTADLTATPSLATEGRLKYLSAIIETGFFRSVCIFRTPHNAGLRGDVFLQPFSPLVWYLFGGVLSLIGVLLWITFYMECKRMQKRWRLDYLPSLLSTFLISFGAACIQSSSLIPRSAGGRLIYFALFLISFIMYNYYTSVVVSSLLSSPVKSKIKTMRQLAESSLTVGLEPLPFTKSYLNYSRLPEIHLFIKRKIESQTQNPELWLPAEQGVLRVRDNPGYVYVFETSSGYAYVERYFTAQEICDLNEVLFRPEQLFYTHLHRNSTYKELFRLRFLRILETGVYRKQRSYWVHMKLHCVAQNFVITVGMEYVAPLLLMLICADILVVVILLVELAWKRFFTRHLTFHP

>DmelIR21a

MSYYWVALVLFTAQAFSIEGDRSASYQEKCISRRLINHYQLNKEIFGVGMCDGNNENEFRQKRRIVPTFQGNPRPRGELLASKFHVNSYNFEQTNSLVGLVNKIAQEYLNKCPPVIYYDSFVEKSDGLILENLFKTIPITFYHGEINADYEAKNKRFTSHIDCNCKSYILFLSDPLMTRKILGPQTESRVVLVSRSTQWRLRDFLSSELSSNIVNLLVIGESLMADPMRERPYVLYTHKLYADGLGSNTPVVLTSWIKGALSRPHINLFPSKFQFGFAGHRFQISAANQPPFIFRIRTLDSSGMGQLRWDGVEFRLLTMISKRLNFSIDITETPTRSNTRGVVDTIQEQIIERTVDIGMSGIYITQERLMDSAMSVGHSPDCAAFITLASKALPKYRAIMGPFQWPVWVALICVYLGGIFPIVFTDRLTLSHLMGNWGEVENMFWYVFGMFTNAFSFTGKYSWSNTRKNSTRLLIGAYWLFTIIITSCYTGSIIAFVTLPAFPDTVDSVLDLLGLFFRVGTLNNGGWETWFQNSTHIPTSRLYKKMEFVGSVDEGIGNVTQSFFWNYAFLGSKAQLEYLVQSNFSDENISRRSALHLSEECFALFQIGFLFPRESVYKIKIDSMILLAQQSGLIAKINNEVSWVMQRSSSGRLLQASSSNSLREIIQEERQLTTADTEGMFLLMALGYFLGATALVSEIVGGITNKCRQIIKRSRKSAASSWSSASSGSMLRTNAEQLSHDKRKANRREAAEVAQKMSFGMRELNLTRATLREIYGSYGAPETDHGQLDIVHTEFPNSSAKLNNIEDEESREALESLQRLDEFMDQMDNDGNPSSHTFRIDN

>DmelIRNMDA1

MAMAEFVFCRPLFGLAIVLLVAPIDAAQRHTASDNPSTYNIGGVLSNSDSEEHFSTTIKHLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIENRVYAVVVSHEQTSGDLSPAAVSYTSGFYSIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEMLSHFAYTKVIIIHSSDTDGRAILGRFQTTSQTYYDDVDVRATVELIVEFEPKLESFTEHLIDMKTAQSRVYLMYASTEDAQVIFRDAGEYNMTGEGHVWIVTEQALFSNNTPDGVLGLQLEHAHSDKGHIRDSVYVLASAIKEMISNETIAEAPKDCGDSAVNWESGKRLFQYLKSRNITGETGQVAFDDNGDRIYAGYDVINIREQQKKHVVGKFSYDSMRAKMRMRINDSEIIWPGKQRRKPEGIMIPTHLRLLTIEEKPFVYVRRMGDDEFRCEPDERPCPLFNNSDATANEFCCRGYCIDLLIELSKRINFTYDLALSPDGQFGHYILRNNTGAMTLRKEWTGLIGELVNERADMIVAPLTINPERAEYIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLSHSDSNEEKALNLSSAVWFAWGVLLNSGIGEGTPRSFSARVLGMVWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYATAEQAIQDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEKLDKQWIFHGHVQQNCELFEKTPNTLGLKNMAGVFILVGVGIAGGVGLIIIEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTIRASLAMQRQYNVGLNSTHAPGTISLAVDKRRYPRLGQRLGPERAWPGDAADVLRIRRPYELGNPGQSPKVMAANQPGMPMPMLGKTRPQQSVLPPRYSPGYTSDVSHLVV

>DmelIRNMDA2

MMPSRVKLKRGTDGPTPTPTPMPTTMRKHTPIATLNTASCQHNSTTSRRKRILTPPSGPISLLLLTVLTLLILDTRSCQGLRLTNGGGSLSKGAAANKEQLNIGLIAPHTNFGKREYLRSINNAVTGLTKTRGAKLTFLKDYSFEQKNIHFDMMSLTPSPTAILSTLCKEFLRVNVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQEHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQTEAITILRAAEEMKLTGENYVWVVSQSVIEKKDAHSQFPVGMLGVHFDTSSAALMNEISNAIKIYSYGVEAYLTDPANRDRRLTTQSLSCEDEGRGRWDNGEIFFKYLRNVSIEGDLNKPNIEFTADGDLRSAELKIMNLRPSANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPVSGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIQAATFMIFLFEWLSPSGYDMKLYLQNTNVTPYRFSLFRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPFSHKPSFKFGTIPYSHTDSTIHKYFNVMHNYMRQYNKTSVADGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNKRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILLAALLLLLEHVYFKYIRKRLAKKDGGHCCALISLSMGKSLTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKVMDKHGIKAPQLRLASSSDLLNHHHLKERPPLLGNLSLAASAQDLYRSYKTEIAEMETVL

>DmelIRGluRIIC

MWQRILLLGCMWSAFFMCRSRGQQINIGAFFYDDELELEKEFMTVVNAINGPESEQTMRFYPLIKRLKPEDGSVTMQEHACDLIDNGVAAIFGPSSKAASDIVALVCNSTGIPHIEFDISDEGIQAEKPNHQMTLNLYPAQAILSKAYADIVQNFGWRKFTIVYDADDARAAARLQDLLQLREVHNDVVRVRKFHKDDDFRVMWKSIRGERRVVLDCEPNMLVELLNSSTEFGLTGQYNHIFLTNLETYTDHLEELAADNETFAVNITAARLLVNPDPPPYSLPYGYVTQRDNIVYESSDPPRTLIHDLIHDALQLFAQSWRNASFFYPDRMVVPRITCDFAASGGRTWAMGRYLARLMKGTSGVNNTNFRTSILQFDEDGQRITFNIEVYDPLDGIGIAIWDPRGQITQLNVDVKAQKKMIYRVATRIGPPYFSYNETARELNLTGNALYQGYAVDLIDAIARHVGFEYVFVPVADQQYGKLDKETKQWNGIIGEIINNDAHMGICDLTITQARKTAVDFTVPFMQLGVSILAYKSPHVEKTLDAYLAPFGGEVWIWILISVFVMTFLKTIVARISKMDWENPHPCNRDPEVLENQWRIHNTGWLTVASIMTAGCDILPRSPQVRMFEATWWIFAIIIANSYTANLAAFLTSSKMEGSIANLKDLSAQKKVKFGTIYGGSTYNLLADSNETVYRLAFNLMNNDDPSAYTKDNLEGVDRVRKNRGDYMFLMETTTLEYHREQNCDLRSVGEKFGEKHYAIAVPFGAEYRSNLSVAILKLSERGELYDLKQKWWKNPNASCFEEPDPDATPDMTFEELRGIFYTLYAGILIAFLIGITEFLVYVQQVALEERLTFKDAFKKEIRFVLCVWNNRKPIVAGTPISSVRTTPRRSLDKSLDRTPKSSRRVVIGRSSEEMREMAQGSGSSSGSNNAGRGEKEARV

>DmelIR41a

MFIDLSWSLVLSAIVGKYLNESTICIFWNDKFEFQLLHKSDYISFVGINIKSFDDNGGHYIIDTGLKKKELQNKHLFLDELVIKIIISIEVTHCETFVVFDKDIDRFVNAFNKASVYSIWRSLHNKFVFAHIANESPESRNHFFEDQPNILFVVRDHSSASSFDIKTNKFVGRKAENPSQMILVDRYLASEQRFQFGKSLFADKLNNLQGREVIIAGFDYPPYTVIKHNMSTNAQDMGVSGESDFKNVYIDGTETRIVLNFCEQFNCTIQIDSSAANDWGKVYPNMSGDGALGMLINRKADICIGAMYSWYEDYTYLDLSMYLVRSGITCLVPAPLRLTSWYLPLEPFKETLWAAILLCLCAEATGLVLAYKSEQALYVLPGYREGWWTCTSFGVCTTFKLFISQSGNSKAYSLTVRVLLFACFLNDLIITSIYGGGLASILTIPSMDEAADTVTRLRFHRLQWAANSEAWVSAIRASDEALVKDILYNFHIYSDDELLRLAQDQHMRIGFTVERLPFGHFAIGNYLGPQAIDQLVIMKDDIYFQYTVAFVPRLWPLLDKLNTLIYSWHSSGFDKYWEYRVVADNLNLKIQQQVQETMTGTKDIGPVPLGMSNFAGFIIVWILGSAIATLTFLLELSLTYILKQSNLK

>DmelIRGluRIIB

MHGLQFLVLLALAIASGANEDTLVIKIGAIFFDTEMKLADAFSAALEEVNAINPALKLDAIKRYVTVDDSIVLQDISCDLIGSGVAAIFGPSSKTNSDIVEVLCNMTGIPHLQFDWHPQQSNRERMNHQLTVNVAPMELFLSAAFSDILASKTFDWKSFTIAYERSSHLIRLQHILAWKQLHKAGIKMQEFERGDDYRILWKRINNAREKFVLLDCPSDILVDVINASIGYNMTGSFNHLFLTNLDTHLSGIDGFYSRDFTVAVAAVRIRTYVPPPVHDEIDVFDNSVDTRFSSLGSQLVYDSIVLFYNALLEISQRPGFYIPNFSCGRGFWQPGPRLVEQMKQITPKMVKPPFKTQRLQINADGQREDFNLEVYNPIIDRVTHIWNKEFQLVDFEKLRENSTQALKQKRLQNKEDFSQKPIRYTVATRVGKPYFSWREEPEGVHYEGNERFEGYAVDLIYMLAQECKFDFNFEPVRDNKYGSYDANTDEWDGIIRQLIDNNAQIGICDLTITQARRSVVDFTVPFMQLGISILSYKEPPPKADIYAFLNPYNAEVWLFVMIAMMITAFALIFTGRIDQYEWDQPVENVNREMERQNIWHLSNALWLVLGSMLNQGCDLLPRGLPMRLLTAFWWIFALLISQTYIAKLAAFITSSKIAGDIGSLHDLVDQNKVQFGTIRGGATSVYFSESNDTDNRMAWNKMLSFKPDAFTKNNEEGVDRVKLSKGTYAFLMETTNLQYYVQRNCELTQIGESFGEKHYGIAVPLNADFRSNLSVGILRLSERGELFKLRNKWFNSNESTCDSNVPTIDDGQFDMDSVGGLFVVLIVGVVVGLVIGVAEFLWHVQRISVKEKIPPMLALKAEFYFVIRFWLTRKPLHTYRQSRDSTSTGYSSLEQITSASSAKKKKKTRRIEK

>DmelIR94c

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>DmelIR54a

MWTVITGIVLWAPVLVAGSAVDFIFRAAAEHSLSVIMIRIDYCPYNWAKDIFENQTIPVVVLSDSETFINIRMFSRPLHVACLPGHELQKDLALLENFTSSLMDFPSQKKIVYISNNFSDPTRMDYIFETCYHRRIWNIVGLLASDEHRYFYRYHLYPSFRTEYRSLESSTIFDKDFPNMHGHPLTVMPDQWLPRSVLYVDRRTGKQILAGSVGRFFHVLSWKLNATLQLSKKVTTGRFLNATALKELSESFSVDVPASLTIMERVEQLASTSYPMEVTHVCLMVPVARRIPIKDIYFILSSASNMFLAIVIVSSYGLALNLLRNMTHRDVRLVDFVLNDKALRGILGQSFNLPLSRSFSTRLIFLMLGIVGLNVSSIFGAGLDTLMAHPPRQFQARSFAGLRRTKIPLVTTEEDFPTWMKLRVPMLVVNVSEYNHLRNGRNTSNAYFASRLYWNLFSEQQKRFTRELFIYSTDDCLWSLALLSFQWPQNSLFTEPVSQLILEVNANGLYDFWVGMHYYDMTAAGLSGLEDPSLQLKEREHPTSLRIVDFQWMWQAYGTFMVIAILVFLLEVSWHRITSLFVSLVY

>DmelIR10a

MAVLGTVFLLFMLDLKTLNLTRLNGLLVEPTRDLPQLELWLRAGSDHQDAENPYVQWFLLRTEIPLSIVTYQENRYWMDDPFGRRNLVLVMSLDQLLTNRGAAAPIQKASTFFYILADQDKDLSADEQLRLEGSCRQLWTQHKVYNRFFLTRDGVWIYDPFKRRDSAFGRLVRYYGSETLDKLLFRDMAGYPLRIQMFRSVYTRPEFDKETGLLTRVTGVDFLVAQMLRERLNFTMLLQQPEKKYFGERSANGSYNGAIGSIIKDGLDICLTGFFVKDYLVQQYMDFTVAVYDDELCIYVPKASRIPQSILPIFAVGYDIWLGFVLTAFACALIWLTLRVINLKLRIVSLGNQHIVGQALGIMVDTWVVWVRLNLSHLPASYAERMFIGTLCLVSVIFGAIFESSLATVYIHPLYYKDINTMQELDESGLKVVYKYSSMADDLFFSETSPLFASLNKKLSWNRDLRADVIDEVARFRNKAGVSRYTSLILESSHFTLLRKIWVVPECPKYYTISYVMPRDSPWEDAVNALLLRFLNAGLIVKWIQDEKSWVDIKMRSNILEADAESELVRVLTIGDLQLAFYVVIGGNLLAFLGFLAEHFRWKLQKKGV

>DmelIR62a

MYLQFLFALFLSRYQIVATENFDRAFELALFLDRIGRVHRLHAITIVNSLGSVDPSYLDDLHRGLMCNSSNHFYMLPQMTATDKDSSHVHFSSLQDEETIYLVFARDSKDAVIYLQAERARGRRYTRTMFLLRKQESQKDIKYFFELLWKLQFRSALVVVAARNFYQMDPYPTVRVIRMRRLSSYDPHHVFPPANRKNFRGYRMRLPVQQDVPNTFWYKNRRTKAWELAGLGGILINQLMMHLNVTMDLFRFEVNGSSLLNMAALTDLIVKGKVELSPHLYDTLQSNTSVDYSYPTQVAPRCFMIPLDNEISRSLYVFLPFSLTMWLCLLFVLLVVHFVYVRRLIPDGHFWAILGVPGAGQVRYGNRKPVRRFSTFLILFGIFILGQTYSTKLTSSLTVTLIRRPDNSLEELFLLPYRILVLPTDVYAIVDSLGHAEQFSTKFSCTDAENFSQKRISMHPEYIYPISTIRWRFFDMQQRFLRKKRFYFSKICHGSFPYQYQLRVDSHLKDALHRFLLHVQQAGLHDLWLDTCYRKAHRMGYLKDFSTLAELEEKLRLRPLALNLLVPAFSLFLCGMLGSGIAFLVEIRHSFGCRQKPPSINRNPGD

>DmelIR100a

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>DmelIR75c

MTSWPLYRLIVFNLLEINLSNLMVFHCWSIKEAFPLVEMLNQNGIFSQYIDVQNPDNLANVHKEYLDSDLVRLGVFLDLGCDKAELVTNQSSRARLYNQNLHWLLYDEAGNFTKLTQLFEGANLSLNADVTYVSREDEERFILHDVYNKGSHLGGKLNITVDQTLQCNRSHCQVKEYLSELHLRPRLQHRMDLSSVTFRLAALVSVLPINSSEEELLEFLNSDRDSHMDSISRIGNRLIMHTQEILGFKLHYIWCGTWSVQDAFGGAIGMLTNESAELCTTPFVPSWNRLHYLHPMTEQAQFRAVCMFRTPHNAGIKAAVFLEPFMPSVWFAFAGLLIFAGVLLWMIFHLERHWMQRCLDFIPSLLSSCLISFGAACIQGSYLMPKSAGGRLAFIAVMLTSFLMYNYYTSIVVSTLLGSPVRSNIRTIQQLADSSLDVGFDTVPFTKTYLVSSPRPDIRSLYKQKVESKRDPNSVWLSPEEGVIRVRDQPGFVYTSEASFMYHFVEKHYLPREISDLNEIILRPESAVYGMVHLNSTYRQLLTQLQVRMLETGITSKQSRFFSKTKLHTFSNSFVIQVGMEYAAPLFISLLVAYFLALLILILEICWARYAKKKFSTIIPQNQ

>DmelIR7c

MLHSAVHNVSLVYALVWAIDNYYGMATSTPLAVVQFPTSRESRRLHNDLIDAALGRSSGTGRIQFLLEDDRVEMTETDTDPPPPSGLTGRPIAIWFLDSLRSYFRLEMYLNQLGSPYKRNGFFLVIYTGLEDQPMESLKIMFRRLLNMYVLNVNVFLQRDGTVHLYTYYPYGPHHCQSSLPVYYTAFQDLAAPANGFGLTKPLFPRKLTNMHGCEMVVATFEHRPYVIIEDDPKTPGGRSIHGIEGLIFRSLAERMNFTIKLVEQKDKNRGEILPDGNFTGILKMMVDGEVNLTFVCFMYSKARSDLMLPSTSYTSFPIVLVVPSGGSISPMGRLTRPFRYIIWSCILVSLIFGFVLICLLKITALPGLRNLVLGRRNRLPFMGMWASLLGGLALYNPQRNFARYILVMWLLQTLILRAAYTGQLYLLLQDVEMRSPIKSLSEVLAKDYEFRILPALRTIFKDSMPTTNFHAVLSLEESLYRLRDEDDPGITVALLQPTVNQFDFRSGPNKRHLTVLPDPLMTAPLTFYMRPHSYFKRRIDRLIMAMMSSGIVARYRKMYMDRIKRVSKRRNLEPKPLSIWRLSGIFVCCAGLYLVALIVFILEILTTNHRRLRRAFNVINRYAA

>DmelIRsubunitIB

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EHGDKISRYLRKVEIEGLTGDIKFNDDGRRVNYTLHVVEMTVNSAMVKVAEWNDDAGLQPLNAKYVRLRPHVEFEKNRTYIVTTVLEEPYIMLKQVAFGEKLHGNNRFEGYCKDLADLLAKELGINYELRLVKDGNYGSEKSSAHGGWDGMVGELVRKEADIAIAAMTITAERERVIDFSKPFMSLGISIMIKKPVKQTPGVFSFMNPLSQEIWVSVIFSYIGVSIVLFFVSRFSPHEWRLVQQQPQQSQSPDPHAHHEQLANQQPPGIIGGAPLPAPPGPPTPGAQTAAGAAALQAALSAGSPGSGGSSSAVVNEFSVWNSFWFSLAAFMQQGCDLSPRSVSGRIAAASWFFFTLILISSYTANLAAFLTVERMVTPINSPEDLAMQTEVQYGTLLHGSTWDFFRRSQIGLHNKMWEYM

NSRKHVFVPTYDEGIKRVRNSKGKYALLVESPKNEYVNAREPCDTMKVGRNLDTKGFGIATPLGSALKDPINLAVLTLKENGELIKLRNKWWYEKAECSTHKDGETSHSELSLSNVAGIFYILIGGLLVSVFVAILEYCFRSRDSRSASSGSGMGLGMGLGGGMSGGSLGKANGSMMLGPSSAVPGGMPSSHQRSTLTDTMHAKAKLTIQASRDYDNGRVGYLNCASLQYYPPAQLSATPPDAGDSLHMNAHGQV

>DmelIRsubunitIA

MHFCWISLIILSLSRVQAQFYGGNAYEASSGQSIRLGLITDDATDRIRQTFEHAISVVNNELGVPLVGETEQVAYGNSVQAFAQLCRLMQSGVGAVFGPAARHTASHLLNACDSKDIPFIYPHLSWGSNPDGFNLHPSPEDIANALYDIVNQFEWSRFIFCYESAEYLKILDHLMTRYGIKGPVIKVMRYDLNLNGNYKSVLRRIRKSEDSRIVVVGSTTGVAELLRQAQQVGIMNEDYTYIIGNLNLHTFDLEEYKYSEANITGIRMFSPDQEEVRDLMEKLHQELGESEPVNSGSTFITMEMALTYDAVRVIAETTKHLPYQPQMLNCSERHDNVQPDGSTFRNYMRSLEIKEKTITGRIYFEGNVRKGFTFDVIELQTSGLVKVGTWEEGKDFEFQRPPQAVNFNDIDDGSLVNKTFIVLISVATKPYASLVESIDTLIGNNQFQGYGVDLIKELADKLGFNFTFRDGGNDYGSFNKTTNSTSGMLKEIVEGRADLAITDLTITSEREEVIDFSIPFMNLGIAILYVKPQKAPPALFSFMDPFSSEVWLYLGIAYLGVSLCFFIIGRLSPIEWDNPYPCIEEPEELENQFTINNSLWFTTGALLQQGSEIAPKALSTRTISAIWWFFTLIMVSSYTANLAAFLTIENPTSPINSVKDLADNKDDVQYGAKRTGSTRNFFSTSEEPIYIKMNEYLNAHPEMLMENNQQGVDKVKSGTKYAFLMESTSIEFNTVRECNLTKVGDPLDEKGYGIAMVKNWPYRDKFNKALLELQEQGVLARLKNKWWNEVGAGVCSAKSDDDGPSELGVDNLSGIYVVLVIGSIISIIISILCWCYFVYKKAKNYEVPFCDALAEEFRIVIRFSENERPLKSAQSIYSRSRNSSQSIESLKTDSEENMPVED

>DmelIRkainate2

MLLRYLLVLLLPGIFGFKNIRIGVIFDGDPIIEDIFNISVKMVNRNRNSDHFLPAEKIIAEKRLVAADDVYDTSEKVCELLDVGVAAIFGPQSKASSSHVQSMCDAMEIPHVSTNMEPYAERLKAINMYPHVKTLSMVFYHLIKNFKWKTYTILYDTDDSLIRMTPLLTNYGTTGYTVTVRRLEGENYRPVLRDVKKSVEQNVILDCDIGILLEVLTQAQQVGLIADKYNFIVCTLDLHTLNIQPFQYSGMNFTAVRIVDPDDYTTRKIIEDFFQPKGITDASQFTLEQALMFDGVQLFARAFKQLSDAVKINIKKLPCNGLENWEHGISLSNFMRASEMRGLTGLVKFDTSGFRSDFQLDILNVGWNGIRKIGTWNSTTNIDWIPETTLFDPNADLSLRNVTFRVLISLTKPYAMLKESSFKKTGNDQFEGFGIDVIVELSKALGFNYTFILHDPEYGKFDNKTGQWTGMIRKIMDNDADLAITDLTITAERESVVDFTMPFMNLGISILFTKPKKASPSLMSFLSPFSNEVWLYVIGVYVFVSIEFFIIGRMCPDEWTNPYPCVEEPENLYNQFSLKNALWFTVGAMMQQGTELAPIGVSTRMLAGSWWFFCIIIVNSYTANLAACLTAETLVKRIENVEDLANQNEIKYGAKAGGSTLSFFANSANPTYKKMFKYMTDNAASVQFESNEEGRDKVLKGDYAFLMESASIEYLSERECDLTQVNGLLDQKGYGIAMRKNSTYRNELSSGVLKLQENGMLASLKTQWWKQKRGGGSCEKDTSTGAPTPLNLSNVGGVYLVLVVGIVFSFFYSLVELLWEIGYNSFKHNASIKEELMDEFKFILQFSGTSKPVKNRKSISSKSEKDSQDSTPPYGFVPAVVTTGPRNETET

>DmelIRkainate1

MTNKLFIFALLSIAFLMEVKTNLVGLEYAQLISYVHNIYDTSSVLIIHNDKTDNIAALGSIFDIVQQLSIEGIPSLTAKITQLLAVKNYYGQSGRRELFVIFIRQYETMKEFERIMNESFTIIGPVWLIIFRPLNNKQLLIDYCQSPRGNPFNVAFNTEMLIKCYDDPIIKEWYSIYKNETVMFNLAFWQPNEAFQLFTEKSLYQRRNNIGGITLRVITIEGSPMVENQFGKLGGFFGKIMEELSQSMNFKIEIIRNETLYGNWDERKKEWSGVIKHLYEKNVDFAVSDMVMSTRRLKAVDFTIPLITSRAILCFKEPNITSIQQLEYFKTFHNHVWSIIMLTTIVTTLILTTVKAKMRRIKSLRILFCENYLNVWRIFCQQGLLEVPKIMPLRLTYFSIFITALIISSVYSATLISYLTVPSTVLPFTTLEGFVKDGSYKLVVLKESVHYAMFQVCSSKTALYSTEETIILQKLPPNCKLITIQTGDINCLAMPISKKSQYTGIMNFHLGRFLDNGMLQHFKYKKKQINSINLQQKYNVVTFSSIETILKIVFIGIVSSAFIFIIELTHFHVTKNKLC

>DmelIRdelta-1

GFDLILSAALCLTCANLTDIRLPEGLIELDENNTVVTISPDLAVDEPSLDDAPLETVKTIVAKKEKMDKLREWIKGRKLVIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQEQMQFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPTLSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYMLIILRNRLTGDKEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNTNESLSMLTNMI

>BdorIRkainate 2

MFFSFKRTFQMYSLILIVVKPYSSLPPVIRLGVLQLRKFGHMYDIETHLRLVNPTTYTKILSELKDKEIHNLIIDTNAANISILLKGILQLQMNEYKYHYLFTSFDIETFDLEDFKNNFANITSFRLVDVGDLSVRNILKNMEAYNYNYNNKTTYYRKLRTIETEPAVAYDSVYIFAIGLTSLQQSLTLSVSNASCASEIPWDGGLSLINYINSVEWRGLTGPIQFKEGRRVKFKLDLVKLRQHSLVKVGEWTPQTRLNITEPALFFDGGTINVTLVVITILYACSLQETPYVMMHYGKNYTGNERFYGFCVDILELIARDVGFDYIIDLVPDRKYGAQDPFTGEWNGMVAQLMKYKADLAVGSMTITYARESVIDFTKPFMNLGISILFKVPSSPASRLFSFMNPLAYDVWLYVLAAYFLVSFTIYVVAKLSPIEWRDKHPCDIKNPIVTNQFTLANSFWFTIGTLMQQGSDINPKSLSTRIVSAIWWFFTLIIIASYTANLAAFLTVERMITPIENAEDLASQTEISYGTLESGSTMTFFRDSIIETYKKMWRNMENKKSIAFTSTYEEGIKRVNQGNFAFLMESTMLDYIVQRDCNLTQIGGLLDTKGYGIATPKGSPWRDKISLSILEFQEKGNIQMLYDRWWKKAGDTCLRKSNSKQTKANALGLDNIEFSIEGGVFVVLFVGIGLAAWVAVFEFWYHYRSRRRASVYYENEHCTVERVMTEMTLNDFDSVYNSKKENVEEIQVKDQKLTCKHITAYCCKEPTAQRSLCGEMLDEFRYALRCMDSHRRPALKRSCPTCHILNDVKEFIDTESRSSMAVHGSLIEGTPKYL

>BdorIRdelta-1

MTGFDLILSAALCLTCANLTDIRLPEGLIELDENNTVVTISPDLAVDEPSLDDAPLETVKTIIAKKEKMDKLREWIKGRKLVIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQEQMQFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPTLSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYMLIILRNRLTGDKEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNTNESLSMLTNMIRNNHAVFSSSSNDTFNLQNFVEKDGYVFVRDRPAINHVLYADYRYRKTISMNDEKLHCPFAMAKEPFLKKNRSFAYPLGSNLSELFDPKLLNLVESGIIKYLSTKDLPNAEICPQNLAGTERQLRNTDLMMTYYIMFAGFVTAMVVFFTEL

IFRYLNQRNEGSKWARHGVGRTTNGLSVRAPRWLRQLETDSDKQRLTASPSGSTITPPPPYQSIFSSNHRHHQQDEAGHLSKESSLHRWRRAGQFGAGGSNFGTLAAGAGSGAGVLLGNGQLHEGSGAGGVRRLINGRDYMVFRNPNGQSQLVPVRAPSAALFQYTYTE

>BdorIRNMDA2B

MIRKMKGLSFSQKANKRRKNVQTNDQTPSGNTALPTRAACTNNNNNKVNKLKICKTTAITQAHNGNAEQQLTTPLICRNNNKKNSCNSVGSQRRYCSSNSSKSTPPPPTFNQHHNHQHQHCLAPGQLTYKMPLPLLSISKTTTTTTALAVSANQQPQQQRQQQREQLESVQNRCLAHYKEQQRQRKTTTTTCAPTKLTQHQRQRQQPATTRALSCLSKSLATLSLRSLLSRHHQLFHFQQHLQQLHLHLHFGIAVIVLASILMYSCPCASALRLTNGGNTKTLSANKEQLNIGLIAPHTNFGKREYLRAINTAVQGLAKTRGAKLTFLKDYSFEPRNIHFDMMSLTPSPTAILSTLCKEFLQANVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQSEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAQTQFPVGMLGVHFDTSSAALMNEISNAIKIYAFGVEAYLTDPANRGRRLTTQSLSCEDEGRGRWDNGEIFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAQELGFTYELVRVEDGKWGTLEDGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNASVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPYSHKPSFKFGTIPYSHTDSTIHKYFKDMHHYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNKRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHIYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLTSSTDMLNHHHLKERPPLLGNLSLAASAQDLYRWSYKTEIAEMETVL

>BdorIR93a

MRFHAFLWSLWLSLCLALLLQNAAANDFSSFLTANASLAVVVDQEYMQRRGENVLASFQKILSDVIRENLKNGGIEVKYYSWSQIRLKKDFLAAMTVADCKSTWQLFDSTQQNSILLIAITDANCPRLPLNRAIMIPIVDEGQELSQIILDIKVQRLLRWKTAAVLLDQTILHDNPTLVESVVHESAKNHITPFSLLLYQIDDTLRSQKKRTAIRQMLSAFQDGGQTPRQFIVLSQFYEDIVEIAASMKLFHVYNQWVFFVLNEELRNHDPISVTQNLDEGANIAFALNTTEPTCSSSINCTITELSLALVTSISRMIVEEQSIYGEISDEEWEAIRYTKQEKQDEMLGYMKEYLREYSKCTSCSHWKIETALTWGKSEEHRRYQSNSELRDTRNKNFEFIDVGYWTPTLGFNTHEVMFPHITHFFRNITLNILTEHSPPWQILERNSRGDIVRHSGISMEILKEMSRMLNFSYILHEVKVSASDSAEDMQHTNNVTDDLFGSLTFNIPYQVIETMQASRYFMAALAATIDEPDKKSFNYTVPISVQMYTFISRQPDEVSRIYLFAAPFTTEIWGCLVAIIIITAPVLYFINRLVPMDHLRITGLSTLNSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFSSSAVQQFGLRNGSYFEKYATQITTRDDFRDYVQRATIYNNVQGEDIGAVQDGKRINVDWRINLQLIIQKQFEKDKECKFSLGRDNFVAEQIGLIVPRDSPYLQLINDKIMRMFQMGFIERWHQINLPSMDKCSGHGGMRQIMNHKVNLDDMQGCFMVLLFGFFIALFILFVEYWYRWYFVEKKRGVFAT

>BdorIR25a

MPRAYLKFYNNIVIFLKILSLVSLTTGQTNQNINVFFINDADNEPAAKAVTVVSTYLKKNPSYGISIQIDQVEANKTDAKTLLESICSKYAESIDRKQPPHVVFDTTKSGISSETVKSFTQALGLPTISASYGQEGDLRQWRDMDESKQKYLLQVMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPTYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQIMSAFYFDLALRTFLAIKDMLQSGAWPKNMEYIGCDEFQGGNTPERNIDLRTAFTMIQEPTSYGVFELVTQPGKSFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEDVMKNLTADTVYRIFTVVQAPFIIKDEKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGN

MDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKFKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKTIDSVILGQAGKEYDKGGNTVLRPRFHQYPTTFKPRF

>BdorIR40a

MKVLLLWLIGWLPGALVQGAITYNADRNISDVAIALSEIINGLKPRQLAILAAPQFHFTKRHAPLPASAEIPDDSQLEGMQMDIDDFIYQLHKLNFKSVIYDKADLFFKFVEDSLQGSIESVNLIFSAPYELSARIQERRLSHRLSLFIFYWGAKHPPKAHEVRFEEPMRAVVITRPRKKAFRIYYNQAVPDGVSNLRLVNWYDGDNLGLQKVPLLPNAATVYSNFNGRVFRVPVFHSPPWFWVSYENDSTNSTMLDDYIDSTNDYNEFTEVNVTGGRDHCLLNLLAQHMNFQFVYIEAPGRTQGSLRNDDTGEENDTFTGGIGLLQNGLADFLLGDVSLSWERRKAVEFSFFTLADSGAFATHAPRHLNEAFAIIRPFKRDVWPYLILTVIFSGPIFYAIIAIPYKWHLPCQKRGARRRLRRQQQCDVERADELVFHMAYIKEITGDNEMTRRLLRQQQQQQRQGVVQQMRSGRVQGLAEIPNNLFDKCIWFTVQLFLKQSCKELYHGYRAKFLMIVYWIAATYVLADVYSAQLTSQFARPPHEAPINTLQRLQKAMLRDGYQLFVEKESSSLEMLENGTEVFRQLYALMKLQNPDMEGYLIDSVEAGILLIADGLENKAVLGGRETLYFNIQQFGSKTFQLSHKLYTRYSAVAVQIGCPFLDSLNDVIIHLFEGGILDKMTNAEYATQSRMLGKEYNALHPTNPSETNGNNEPPPSDDNRNANGGGDINGKGEENTEATPKSLDSQIIQPLNLRMLQGAFIVLICGYAAATGILVLELCCHRLNSNFMERTQARLLRRYRWCSRKIRRMTHMLFVRIMR

>BdorIR1

MAVPKGATTARRQTFAAALLCRRTSLITTLILLLSKWNLYVSAVANFYEFDAFADVLKQQHLHHAIIAYNGDTEQTQQQAGLLKDNALRALLNVASLQFYDVHQAESAKNATDFQRLFYHDSPRVGIYVAQLEDVLLQQYVLGSNVISVDTIDAGGYRVRVDVGSRFNSSRVWFIMSKQRTVTAALANVRRVMTPLPLNISADITIGVRLDDNNTIQLFDIYKIQKDWLDIEPKGYWSTAEGLKLNLRFHQTFVNRRRNFKGLQLVGGIVIREQPADMADLDYLNSLYHKNFDPMQRKTYQLVKLMEPVFDVSFQPALRKTWGEQAPNGSWDGVMKLLLSGEAEFSLCPMRFVPNRVHLIHYTIAVHTEFVFFIFRHPHRNDIRNIFFEPFVEEVWYTVIAIVALTTLLLQLHLHHENRFFINKDPHFQTRFDYAIFSILEAFFQQGPSTDAFTATSTRTLIFSVCLFSLLLQQFYGAYIVGSLLSVSPRTITNLEALYNSSLDIGIENIPYNIDTFEKTTVPLGMAIYKERVCKNRERNILYIAEGAERIKKGGFAFHVSANRMYYILKELLTEKEFCDLQDVPFIPPYRIGIGITKSSPFREYFTTTIAKFHTTGLLQHNDNQWQLPQMDCSLSQNYEVEVDLQHFLPALLFLVSAMLLSLAVLILEIIYYNLEKSTKLARLCPRIMPKPKLEFIN

>BdorIR75a

MWFSTSVATVIGTFITISIFIVQSDYHAGAGFIITGFVTNLNMAMNVIIFACNKNNLLQITKKMLRYGLLIEIIDINGKYKLDSAFTRANYRKSSVLTDCICVNTNKLLNQASARRYFNKTYQWFLWYKEGKQVESLISPGIDYLGPNAQITLINGSNSMIQIWNVYSVGKHLRNPLKLSLINLSPIKESSYKHISKNIMQLQYSRKRNQFHGAILRGATVIDVNDVISNIKIFSLLSDPGKQSGISAFTKYYYELVQILKDHINFRIEFRVARGWAGKLANTSYRLGFLGIMARNEADVGASGIFNRLNRFSDFDIIHQGWKFETAFIYRAYASELSFQIKGDNFLIPLKRDVWLAIIWLFAVISLVYWLLSNVNLKLQLKNNKQLLDARCLQHVQTELTQEEHKRTFGEYTNDYYSSDLRDTLPVSNIFLIIIAAICQQSIISLSRSSAIRILYFVIFINTLLIYNYYTSSVVSGLLSSSLQGPANIDEIITSSLKVSFEDIGYYKVLFKESNSPVVARLIHKKLLSSRKYYDLPVFTNIKTALPFIKDGSYAFHCEV

VDAFAEIAKNFEAKELCSLRVIKGLMEMELMNGIVHKNSQYTEIFRFTMHWAREIGLVGRLNNRQPKRLICQSVYFVFPVNLSNMPGLYFILLGTILSLLTSLFEIVYHFYSIQK

>BdorIR21a

MPPSWTRFLVQAALLLCSLQWVCSELATAAEVDRVACVSPTLIKRHNLNPQLYGGCEYRKRNATVSQFRRLRREIKPIFRGHPKPRGEVLANKFHMNSFGADQTDSLVKLVNKIAIEYLYKCPPVIYYDSFVKKSEAMILESLFKTFPITFYHGEINEHYKAINSRLRRRIDSQCKSYILFLSDPEMTRKIIGPQIESRVVLVARSTQWKLRDFLSSEASSNIVNLLVIGESLTETPSRERPYVLYTHKLYTDGLGSNTPIVLTSWIRGALSRPHVNLFPTKFANGFAGHSFQVSAINQPPFIFRIQSLSRGGSSHTNWDGLEYRLLNMIASKLNFTIDIIEPARRTNVKSVIDNIMLQVRTKAADIGMCGLYITDDRITETDMSIGHSRDCASFITLASKALPKYRAIMGPFQWPVWVCIVVIYLGAIFPIVYSDRLTLRHLIGNWGEMENMFWYVFGMFTNSLTFSGKYSWTSTQKTSTRLLIGSYWLFTIIITACYTGSIIAFVTLPAFPNTVDSVNDLLGLFFRVGTLDNGGWETWFQNSTHVPTVKLYKKMEFVSNLEEGIGNVTQSFFWNYAFLGSAAQLEFMVQKNFSDDNISRRSALHLSEECFALFQVGFLFPRDSVYKRKIDSMILLAQQSGLMNKILNEVKWSMQRSASGKLLQASSANALRERIQEERQLTTADTEGMFLLMGIGYLLGAIALVSEIVGGITNKCRQIVRRSRKSISSAWSSKRNSEDGEGLRTAAEQLAHEQRKEVKRKAEKQGFGMREFNLTKKTLKELYGNYYKQEPTYVLKDGKLLLETEALSTSSADYHSRDSSGEVPANMLPHLHCKKKAMLVAEIDVERERERELMAAAAEESLAALDACLKLEQDTDSSERSEDDVAYEYELFGSLVEPEGPLSTKLDDLNLFTEGAAELEKVENEPVEARKS

>BdorIRNMDA1

MPVLNGINVVYLLFCGIHLGVIAQKHSQHSDNPSTYNIGGVLADPESESHFRTIISNLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIEKRVYAVVVSHEQTSGDLSPAAVSYTSGFYQIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEIMFHFGYTKVIIIHSSDTDGRAILGRFQTTSQTNYDDIDVRATVEMIVEFEPKLDSFTEHLIDMKTAQSRVYLLYASTEDAQVIFRDAAINNMTEAGHAWIVTEQALHANNTPVGVLGLVLEHANSDKEHIRDSVYVLASAIKEMMSNETITEAPKDCGDSGVNWESGKRLFQYLKTRNITGKTGQVAFDDNGDRIYAGYDVINIHEKQKKHVVGKFYYDPEKAKMRLRINDSEILWPGKQKKKPEGIMIPTHLKILTIEEKPFVYTRRLTDDEVNCDEDEIPCPLFNATDGSENENCCRGYCIDLLNALSHRINFTFALALSPDGQFGHFTLKNVSSSSSGAITSRKEWSGLIGELVNERADMAMPLTINPERAEFIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLSHTDSNEEKALNLSSAVWFAWGVLLNSGIGEGTPRSFSARVLGMFWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYDTAEQAIQDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEALDKHWIFHGNAQQCELFEKTPNTLGLQNMAGVFILVAAGVAGGVGLIIVEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTLRASLAMQRQYNVGLNATPGTISFAVDKRRYPRMGPRAPEQAWKSDADILRNRRYLDDATKGGHSPAVHMPILGKMRPPTNMLPPRYSPAYTSNVSHLVV

>BdorIRkainateglr-3

MWLLQKLVILFTLGYVCANELKIAFWIDPLQADIELDVASTLKEIEALQLETKIQYYVVVITNVGKKKQEKNMEKLCEHLATDGVSVVIDFTYHIWREGLDLLRTYQIPFLRVDRMLAPYFKMFSEFVLQKSGHECIMIFQNARDTEEAIIQIVEGYPFRSLIMNAFDNKQDFIKRLRKIRPMPSCYAIFADGTAMNSIFDRISKANFFERPREWHFVYLDPRDRVFKFKKQVDYATKFTLNPKTLCRALRMKDTYCLSGFSFQRAMILEILRGLIELKQANLNWLQSFVMECNATSPIENGTAGLDILEQFPMSEFLDLTTDVTFPNDEFEHVPRLTYTPTISINLYSSEHDAVTELAIWQNDNLRKINETISPPRRFFRIGTVEAIPWNYMKRDPKTDELILDSFGNPIWEGFCIDSIQKLSERLNFGYMLVPPTSGEFGRRDVVNDVWDGIVGDLVTGETDFAVTALKMYSEREEVIDYIAPYFEQTGISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSALMIWLLDKYSPYSYRNNRAAYQYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVEGSSTHQYFINMKFAEDTLYRMWKELTLNVTEDFQRYRIWDYPIKEQYGTILLAINGSEPVKNAKEGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEVFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEDLKAKYWNMSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIIYYRRKYSTMQRFSEITKVKPASGTSIKQLLPKKKSKKRIAVWHTSTSKRDNSPEHKTPPPAFDAVKFRGKKVPPNITLGGQVFKPGRAGQRQLSESLDSAEYRNEGIPNRDDELPPYTE

>BlatIRkainate2

MARPCRQILLHFMTTTRCSCITLILLLALSCLQIAASQKTNVGLIYESDNPDMEKIFQIAIDKANEESGGTLELHGIAVAIEPGNAFETSKKLCKMLRQNLVAVFGPTTDLAAKHAMSICDAKELPFIDTRWDFAVQMPTVNLYPHASQLAVALKDLVVALEWTDTFTIIYETGEFLPTVNQLLEMYGTMGPTITVRRYELDLNGDYRNVLRRIKNSGDYSFVVVGSMATLPEFFKQAQQVGLMTDDYRYIVGNLDFQTMDLEPFQHGDTNITGIRLVSPDEKLVQDLAKTLYETEEPFQNVSCPLTTSMALVYDGVQLLAETFKHVMFRAVPLNCNDASSWDKGYTLVNYMKSLSLTGLTGEVKFDYEGLRTDFALDVIELTMSGMQKIGEWKTEDGFFANRPPPKIVEVDQRSLVNKSFVVITAISEPYGMLKETPAKLEGNDQFEGFGIELIEELGKKLGFTYTFRLQVDNKYGSFNPKTGKYDGMMLEIIEGRADMGITDLTMTSIREEGVDFTIPFMNLGIAILFRKPMKEPPKLFSFMSPFSGTVWMWLGIAYMSVSLTLFILGRISPTEWDNPYPCIEEPTELENQFSFPNCLWFSIGALLQQGSELAPKAYSTRTVASIWWFFTLILVSSYTANLAAFLTIESLSSPIENAEDLANNKGGVKYGAKVGGSTFTFFQDAKYPTYQKMYEFMRDHPEYMTSTNAEGVDRVENENYAFLMESTTIEYITERRCSLTQVGSLLDEKGYGIAMRKNWPYRDTLSQAVLELQEQGVLTKMKTKWWKEKRGGGACSDTSSEGGAVALELSNLGGVYLVLIVGSFFGVLVAFLEMVLGVKERSDENKVSFKTELIEEFRFVMQCSGNTRPVKYPKNSSRSRSRSSRSRSHSRSSSKSSILSVDSLPMDESKLHHISEHTKHVK

>BlatIR21a

MCSELVTGAEVDGIACVSATLIKRHNLNPQLYGGCEYRKRNATVPQFRRLRREIKPIFRGHPKPRGEILANKFHMNTFGADQTESLVKLVNKIAIEYLYKCPPVIYYDSFVKKSEAMILESLFKTFPISFYHGEINEHYKAINSRLRRRIDSQCKSYILFLSDPEMTRKIIGPQIESRVVLVARSTQWKLRDFLSSEASSNIVNLLVIGESLTETPSRERPYVLYTHKLYTDGLGSNTPIVLTSWIRGALSRPHVNLFPPKFANGFAGHSFQVSAINQPPFIFRIQSLSRGGSSHTNWDGLEYRLLNMIASKLNFTIDIIEPARRINVKSVIDNIILQVRTRAADIGMCGLYITDDRITETDMSIGHSRDCASFITLASKALPKYRAIMGPFQWPVWVCIVVIYLGAIFPIVYSDRLTLRHLIGNWGEMENMFWYVFGMFTNSLTFSGKYSWTSTQKTSTRLLIGSYWLFTIIITACYTGSIIAFVTLPAFPNTVDSVNDLLGLFFRVGTLDNGGWETWFQNSTHVPTVKLYKKMEFVSNLEEGIGNVTQSFFWNYAFLGSAAQLEFMVQKNFSDDNISRRSALHLSEECFALFQVGFLFPRDSVYKRKIDSMILLAQQSGLMNKILNEVKWSMQRSASGKLLQASSANALRERIQEERQLTTADTEGMFLLMGIGYLLGAIALVSEIVGGITNKCRQIVRRSRKSISSAWSSKRNSDDGEGLRTAAEQLAHEQRKQAKRKAEKQGFGMREFNLTKKTLKELYGNYYKQEPTYVLKDGKLLLETEALSTSSTDYHSRDSSGEVPANMLPHLHSRKKAMLVAEIDVERERERERELMAAAAEESLAALDACLKMEQDTNSSERSDDDVAYEYELFGSLVEPEGSLSTKLDDLNLFTEGAAELEKVDNEPVVARQS

>BlatIRkainate5

MSAMRFRASLWSLWLPLCLALLPQHVAANDFSSFLTANASLAVVVDQEYMQMRGENVLASFQKILSDVIRENLKNGGIEVKYYSWSQIRLKKDFLAAMTVADCKSTWQLFDSTQQNSILLIAITDANCPRLPLNRAIMIPIVDEGQELSQIILDIKVQRLLRWKTAAVLLDQTILHDNPTLVESVVHESAKNHITPFSLLLYQIDDTLRSQKKRSAIRQMLSAFQDGEQTPRQFIVLSQFYEDVVEIAASMKLFHVYNQWVFFVLSEELRNHDPISVTQNLDEGANIAFALNTTEPTCSSSINCTITELSLALVTSISRMIVEEQSIYGEISDEEWEAIRYTKQEKQDEMLGYMKEYLREYSKCTSCSHWKIETALTWGKSEEHRRYQSNSELRDTHNKNFEFIDVGYWTPTLGFNTHEVMFPHITHFFRNITLDILTVHSPPWQILERNSRGDIVRHSGISMEILKEMSRMLNFSYILHEVKVNAADSAAEDMQHTANVTDDLFGSLTFNIPYQVIETMQASRYFMAALAATIDEPDKKSFNYTVPISVQMYTFISRQPDEVSRIYLFAAPFTTEIWGCLVVIIIITAPVLYFINRLVPMDHLRITGLSTLNSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFSSSAMQQFGLRNGSYFEKYATQITTRDDFRDYVQRAIIYNNVQGEDIGAVQDGKRINVDWRINLQLIIQKQFEKDKECKFSLGRDNFVAEQIGLIVPRDSPYLQLINDKITRMFQMGFIERWHQINLPSMDKCSGHGGMRQIMNHKVNLDDMQGCFMVLLFGFFIALFILFIEYWYRWYFVEKKRGVFST

>BlatIR25a

MPSAYLKFYNNIVTFLNILSLVSLATGQTNQNINVFFINDADNEPAAKAVTVVSTYLKKNPSYGISIQIDQVEANKTDAKTLLESICSKYAESIDRKQPPHVVFDTTKSGISSETVKSFTQALGLPTISASYGQEGDLRQWRDMDESKQKYLLQVMPPADLIPEVVRSIVRKMNITNAAILYDDTYVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPTYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQIMSAFYFDLALRTFLAIKDMLQSGAWPKNMQYIGCDEFQGGNTPERNIDLRTAFTMVQEPTSYGMFELVTQPGKSFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEDVMKNLTADTVYRIFTVVQAPFIIKDEKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKFKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKTIDSVIL

GQTGKEYDKGGNTVLRPRFHQYPTTFKPRF

>BlatIRdelta-1

MTGFDLILSAALCLTCANLTDIRLPEGLIELEENNTVVAISPDLAVDEPSLDDAPLETVKTIIAKKEKMDKLREWIKGRKLVIATLEDYPLSYTVMENDTRVGKGVAFELIDFLQEQMQFTYEVVVPEDNIIGSREDYEKSLIKMLNNSEADLAAAFIPTLSEQHSFVFYSTTTLDEGEWIMVMQRPRESATGSGLMAPFDFWVWILIFISLLAVGPIIYMLIILRNRLTGDKEQKPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVSDILYKNKHFVSARGGGVEYAIRNTNESLSMLTNMIRNNHAVFSSSSNDTFNLQNFVEKDGYVFVRDRPAINHVLYADYRYRKTISMNDEKLHCPFAMAKEPFLKKNRSFAYPLGSNLSELFDPKLLNLVESGIIKYLSTKDLPNAEICPQNLAGTERQLRNTDLMMTYYIMFAGFVTAMVVFFTEL

IFRYLNQRNEGSKWARHGIGRTTNGLSVRAPRWLRQLETDSDKQRLTASPSGSTITPPPPYQSIFSSNHRHQHQQDEASHLSKESSLHRWRRAGQFGAGGSNFGTLAVGTGSGAGVLLGNGQLHEGSGAGGVRRLINGRDYMVFRNPNGQSQLVPVRAPSAALFQYTYTE

>BlatIRNMDA2B

MIRKMKGLSFCQKANKRRKNVETNDQTPRGNTALPTRAACTNHNNNKVNKLKICKTTTITQTHNVNAEHQLTTPLICRNNNKKNSCNSVGSQRRYCSNGSNNSTTPPPTFNQHHNHQHQHCLAPGQLTYKMPLPLLSICKTTTTTTAVDVSADQQQLQQQRQQQHEQLERVQNCCLARCKEQQRQRKATTTYAPTKLTQTHRQHLSQQPATTHALSCFSKSLETLSLRALLSRHHQLFHFQQHLQQLHLHLHFHFGIAVIVLASILMYSCPCASALRLTNGGNTKTLSANKEQLNIGLIAPHTNFGKREYLRAINTAVQGLAKTRGAKLTFLKDYSFEPRNIHFDMMSLTPSPTAILSTLCKEFLQANVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQSEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAQTQFPIGMLGVHFDTSSAALMNEISNAIKIYAFGVEAYLTDPANRGRRLTTQSLSCEDEGRGRWDNGEIFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNASVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPYSHKPSFKFGTIPYSHTDSTIHKYFKDMHHYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNKRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHIYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLTSSTDMLNHHHLKERPPLLGNLSLAASAQDLYRSYKTEIAEMETVL

>BlatIRkainate1

MRFSNIFVPLLLLIAVKLTHEYTNNGDIEVKVGVLFFRDEYEIELSFDEAFLEINNNKLFGLSFQLIKRF

VPSDDSFILQQLTCELISDGVVAIFGPSSKTSTDIVAVIANATGIPHMKFDWRIESPTQDRLNNRMTVNVAPSVAMISRAYYSIIKYNYEWQQFTLVYETKIGLARLQDLMNINPLNSEQIKIRYIEDYKSDLRVLWKEISETFHENKVILDCEADSLRDLVLTAKEFKMLGSFKYLFLSHLNTHNSPLQSMYDSGYRANITSVRLKLVDENPFRRKKTRLRPIDEIFQNQILLPVLMYDAVVLFANAARNVITKVRSYVEPQRRCEFEYGRPWYIGRQIVREMKSISEDDVEPPFKTENLKIDENGQRTQFNLEIYKPTTNEILAVWKSDGTVSPPTSIQFGTGSSSNTPDFSLERKKFIVTTRFEAPYFMLKEDYENLRGMERYEGYAVDLIQKLSDIMGFEYEFLIESRTGKLNPDTGEWDGMIRRLIDHQAQIAISDITITQARRQVVDFTVPFMQLGISILYYKRPPEAKNEFAFLEPFAEEVWYYLMLTQLIMTLLFVILARFSHHEWTNPNPADSDPEELENIWNNSNSFWLMIGSIMQQGCDILPKGPPMRILSSMWWFFTLMMVNAYIANLAASLTNNKLPSEFDSLESLIDQDKIKYGTLAGGSTSVFFSESNETEYKRAWNQMISFKPSAFTSSNKEGVDRVRKGNGSYAFLMETTTLSYNIERDCHLKQVGSQFSEKHYALAVPLGAEYRSNLSVSLLQLSEKGELFNLKHRWWTPTVKPECPSEDTTDGDELSIIELSGVFLVLGAGVVVSFIIGCCEFLWNVQTVAVNEKTTPWQAFKAELCFVLKFWITKKPAIISESTKSSISSNSSSKRSYDRSHSRSHSRVSGRSRHTKSKTRERERERSVVSRRYYD

>BlatIR75d

QLPALTYKSGILLLEFASACSLNALRWAAAAEHNYFTTNRFWLLFTDEPTHISLLDDEDIFLPPDGEVRVMLWQPGMQFFTLVDVYKVAADKPLRRTLVGGRELRDAEDMLQALGKFGSAISYRQNLEGITFKTGLVIAFPDLFTNIEDLSLRHIDTISKVNNRLTLELANKLNLRFNTHQVDNYGWHKPNGSFDGLMGRFQRYELDFAQMAIFMRLDRIAIVDFVAETYRIRAGIMFRQPPLSAVANIFAMPFASDVWIAILLLMIFTICIFIVELVYSPHLHEMDILDCVVFVWGAMCQQGFYANLLNRSARVIIFTTFVSTLFLYTSFSANIVALLQSPSEAIQTLSDLTQSPLEVGVQDTQYNKIYFNESTDPVTNHLYHKKIAPKGENIFMRPAIGMKKMRTGLFAYQVELQAGYQIISNTFSEPEKCGLKELEPFQLPMIAVPTRKNFPYKELFRRQLRWQREVGLMNREELKWFPQKPKCEGGMGGFVSIGITECRYALGIFGFGLLLSAFSFILELIVNYVWNLAKKIHRIKKQRKESNTADGYRGNFVH

>BlatIR76a

MSLLSPAVNHWTALLNFIIQTYFIDSHATCILWHHDFPFELQTPANGEFIQYINIWPDNLSQSLQQDIYNFTAFAETQLAYGMHPDALVQKLTIAIRESHCETFVAFQEDIPSFARSFYNASRISVWRSLRNKFLFVYRKDLQQDTTTYFDDFLFVDQPNVLIVEAECGNCSTFALKTNKFIGPLAEHPEQLYVLDHYNGVDGKFELGVDLYMDKVHNLQGREVTVGIFDYRPFTVVDYERQPQIKDRSPENLRGMTHIDGTEVRMLLALCEVVNCTVNTDTSEDDWGISYANLTADGIFGLVTSRKAQYVVGALYFWPDDYRYLDMSSFIGRSGVTCLVPSPHRLTSWLLPLRPFQLTLWLGVFASLGLETLALFFTRHLAPSDTEPRYGLMESFQFGYITTLKLFVSQGSDYVVNSHTVRMVLFACYMMDTIVTSVYGGGLSAILTLPTLEEASDSVERLYRHGIPWTATSPDWVISLRGADDDPMVEKLLQKYHVYTYEQLTEFAKTENMGFILERLAFGHFGNVDFLTDESFKRLKLMIDDIYFQYCFAFVPRLWALLPKLNDVIMQVHSTGLDIFWEWEVAATYMDGQQQEEIQASMYMDFDVGPVKLDMGNFIGLVLPLIIGLVFSIFAFIGELAYYKYTQKEAQAVINVN

>BlatIR8a

MWLMQKLVILVSFGYVCTNELKIAFWIDPLQADIELDVASTVKEIEALKLETKVQYYVVVITNVGRKKEEKNMEKLCEHLATDGVSVVIDFTYHIWREGLDLLRAYHIPFLRVDRILAPYFKMFSQFVLQKAGHECVMIFQNARDTEEAIIQIVEGYPFRSLIMNAFDTKQDFIKRLRKVRPMPSCYAIFADGTAMNSIFDRISKANIFERPREWHFVYLDPRDRVFKFKKQVDYATKFTINPKTLCRTLRMKDTYCLSGFSFQRAMILEILRGLIELKQANLFWLQSFVMECNATTPIENGTAGFDILEQLPMSEFLDFTTDATFPDDEFDHVPRLTYTPTININLYSSEHDAASELAIWQNDNLRKINETISPPRRFFRIGTVEAIPWNYMKRDPKTDELILDSFGNPIWEGFCIDSIQKLSERLNFGYMLVPPTSGEFGRRDVVNDVWDGIVGDLVTGETDFAVTALKMYSEREEVIDYIAPYFEQT

GISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSALMIWLLDKYSPYSYRNNRAAYPYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVEGSGTHQYFINMKFAEDTLYRMWKELTLNVTEDFQRYRIWDYPIKEQYGTILLAINGSEPVKDAREGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEVFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEDLKAKYWNMSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIIYYRRKYNTMQRFSEITKVKPASGTSIKQLLPKKKSKKRIAVWHTSTSKRDNTPEHKTPPPAFDAVKFRGKKVPPSITLGGQQFKPRRAGQRQLSESLDSAEYRNEGIPNRDDELPPYTE

>AludIR75a-4

ILIHFLGCNVNYTLVNRWTINETHGGLIGALAVQSADLISTPFIPTAPRMEFFTVIAETSSFRSICLFRTPRNSGIQGDVFLKPFNTTVWLLFGLLLLLTAAVLWSIFRLERKRMHQRYVDYMPSFLATFLISFGSACSQGSDLVPGSIGGRMVFFTLYLLTFLMYNYYTSIVVSSLLGSPVKSDIKTMGQLADSSLEVGLEPLPFTLTYLNNSLLPEVRRFKHKIDSTPNPQAIWMPLKKGILRVRDEPGFVFGFEASTGFLLVKRYYKPYEICDLNEILFRPEKSLFSAIHKNSSYKEIAKQRVYRILETGVSLKLHRYWVQTTLECFDSNF

>AludIR75a-2

MQPVLFSFILNHFLNANINAVVFFNCWSVQAQRHLSHLTSQRLWYTRFVNIESIDLSVDFEYQYLLHNRQILGAFLDVNCNKSEEVMNTLSRWHLYKEHYNWLLYDRSADMHKLQRLFTNANLSVDAQLTYATLRLPLHDTPPHTNLSFYTTYDVYNNGRLLGGKLNVTIDREYQCNWKVCHVSRYLSELHLRHKYGNRDKLHDITMRVSTVITNRPLSWPVPLLLAYLSSENNTEIDPISRFGYQVLLVFKDSFGCNMNLTFYDRWSTNETHGGTVGDIVTQAADFISTPVLATASRLKHLSLIAETGAFRSLCLFRTPRSGSMRGDAFLQPFNSSVWLVFSILLAILAIFLWRAFAVEMRNFRRRLPYEPSLLATFLLAFGSACYQGSNIVPFSMGGRMAYFTLYFATFIMYNYYTSILLSTLLGTPVKSDIRTLGQLADSSLEVGLQPLPYTYVYLNVSQLPEVRRFVHRKIEAKRHPGNVWMPMEEGVLRVRDEPGFVFVLETSQAYSFLERNFLPHEICDLNEVMLRPDKSLYT

>AludIR75a-1

MIDCTCTNADYLLRQASLGHYFNKTYQWFLWSYENKNAEEIVPSDINYLGPNSQVTCINGTNSTIWNVYSNGRHLQSPLKFSLISNSVSVPPFTKLPDINIGKLILKAQHARTRNQFGGLKMRAVTVIDLDNITSNTQITGLLSENVKHIGISAFTKYYFELVQILKEHINFSIEFRVARGWAGRLDNTSFRLGFLGIMARNEADVGVSGIFNRISRFAEFDIIHQGWKFETAFLYRFVPELSNNIKAGSFLVPFQRPVWILIAWLIITTSLVFWLIDNIKIRHENQKQLLDNKEQTSLANILLISIAAICQQSVNPTSKWLSIRILFLSVFVFSLLIYNYYTSSVVSGLLSSSAQGPTNIEEIICSPLKVSFEDIGYYKVLFRESKSATVKRLIRQKLLPSRKELDDLPVYTHIQKAISLIKKGSYAFHCELADAFPEIAKNFDANELCTLRVVKGLMDIELMNGIVPKNSQYTEIFRFTLIWFRETGLIGRVLYKRLPKKTNMSSSVYRFSSNFFKCTRPVFFASWWDFIICVNRIVRDLNSCVLYSRVIQFLWFVSILHFCLT

>AludIR75d

MQMLNFHRLSILLIYNYTILVAAFNAATAIELVNATRAGNLTAEVRSAADATSTYDARIFMEYFRWHGVHNIILVVCPEDVGTRAEHHKLQSILHEFIANGFSTRIFNGHDYDGSVDSPNDKQIQMKPQQLNATTTFPVDASKDPAAVTCATFGPPRTFRSDNDTRRPLRLHLPPFTYKSGILMLQFASACALNVLRWSAASEHNYFTTNRFWLLLTDEPTNISLLDDKDIFLPPDGEVRIIVRQPKAHFYTMVDVYKVSAEKPLRRTSMGVPQMQGVNDLLQALRKFGSAISYRQNLEGITFKTGLVIAFPDLFTNIEDLSLRHIDTISKVNNRLTIELANKLNMHFNTHQADNYGWHQPNGSFDGLMGRFQRYELDFAQMAIFMRLDRIALVDFVAETFRIRAGIMFRQPPLSAVANIFAMPFARDVWISILLLMIFTSGIFIVELKYSPHSHEIDILDCVVFVWGAMCQQGFYANILNRSARFIVFTTFVSTLFLYTSFSANIVALLQSPSEAIQTLSDLAQSPLEIGVQDTVYNKIYFNESTDPITNPLYHKKIAPKGDNIFMRPTVGMEKMRTGLFAYQVELQAGYQIISNTFSEPEKCGLKELEPFQLPMIAIPTRKNFPYKELFRRQIRWQREVGLMNREELKWFPQKPKCESGVGGFVSIGITECRYALGIFGFGLLLSALSFILEIAVSCAWALVKKICRNKKQ

>AludIR8a

MWLMQKLAFIVLFGYVGATELKIVFWIDPLQAGIDVDVASTVKIEVDVASAVSEIQALNLDTQIQYSVVVIEEEEKNKAQNMDKVCERLAMDGVSVVIDFTYHIWRDGLDLLRTYQIPFLRVERMLTPYLKMFSQFIMQKSGHECIMIFENSRDTEEAIIQIIEGYHFRTLVLNAFDERDFVQRVRQLRPTPSCYALFAGGTTMNTIFEKISKGKLFERPREWHFVYLDTRDRVFKFKKSVEYATKFTINPKTLCRAVRMKDTYCLSGFTFQRAMILEILRGLIEIKQTNMYWLQSFVMECNGTSPNLETPTGFDILEQFPTSDFLHFTTDVSFPKDEFDHVPRLTYSPTININFYSSEHEAVTDLAIWENDELRKINGTISPPMRFFRIGTVESIPWNYLKRDPHTDELVLDAYGNTIWEGFCIDFIKTLSERLNFGYVLVPPTTGEFGRYDATNDRWDGIVGDLVTGETDFAVTALKMYSEREGVIDYIAPYFEQTGISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSAIMIWLLDKYSPYSYRNNRAAYPYPCREFTLRESFWFALTSFTPQGGGEAPKAISGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQAPVQSLEQLARQSRINYTVVEGSSTHQYFINMKFAEDTLYRMWKELTLNVSEDYQKYRIWDYPIKEQYGTILLAINGSEPVKDAKEGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEVFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEELKAKYWNTSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIFYYRRKYSAMRRFNEITKVKPASTSSLKQLVQKKKPKKRIAIWHTAKRDNSAEHTTPPPAFDAIKFRGKKVPHSITLGGEEFKPRKGGLRRLSDSLDSVNYATKEGIPANRDDELPPYTE

>AludIR76a

MLLLSPAVNYWTTLLNFIIQKYFIDSHATCILWHRDFPFELQTPADSEFIQYINIWPDNLSQSLQQDIYNFTAFNEIQRDYGMQLDALVQKLTIAIRESHCESFIAFQQDIPVFTRSFYNASRISVWRSLRNKFLFVYRKDLQQDTGTAAYFDDFLFIDQPNILIVEAECGNCSMLALKTNKFIGPLAEHPEQLYVLDHYNALSDKFELGVDLYMDKIKDLQGREVTAGVFDYRPFSVLDFNREPQVKDNNPENLRGTVHLDGTEVRMLFALCEVINCTVQADSSDKTDWGTSYANLTGDGLFGLITERKSEYIVGALYFWPDDYRYLDMSHFIGRSGVTCLVPAPQRLTSWLLPFRPFQFTLWMGVFASLLLETLALFFTRRLAPSDNEPHYSLLESFQFGYITTLKLFVSQGSDYVVNSNTVRTVLFACYMMDTIVTSVYGGGLSAILTLPTMEEASDSVERLYRHGIPWTATSPDWVISFRGEGDDIDPMVEKLLSNYHVYTYEQLTEMAKTENMGFILERLAFGHFGNVGFLTDESFKRLKLMVDDIYFQYCFVFVPRLWALLSKLNDVILEVHSTGLDIFWEWEVGAHYMDGQQQEEIQASMYMDFDVGPVKLDMDNFVGLVLPLLIGLILSAFAFIGELIYFKYTTQKKEKNTEIEERRISELKIA

>AludIR92a

MLPPHTHVTTLLQLLIQKYFAQFSSVLIIHGGQTVGGSSTLQQEYLEAVQLAFRNLSQQGRVIGLQWIDVSQLDKNSNCNEGATSSDSPSSSNSNSNTLCDDSFSYDDELQLHLLRAVDIITEGFITILTDTVRFVHARYYATRNAELRLKDKFYLFLCEHENPQDLLSTEILQFYPHHLMVIPETQNKTKKSHESTVTNIPNTNATRARSKRYPSIQITPLYTHHDLNFQLWTQKFVGTNGNLDAMLLDEFLPNGTFSQNAELFPNKVSNMRGRTLRVGSITYIPYVVTNYVPDGTGEVDALDSSAFSRTVSFLGSEAELMKSFCDSRNCRLSVENYGGYNWGYIYENESSEGMMGGVYTQNVEVAIGCVYNWYNNITETSFTIARSAAAILGPAPAQFPAWRACIMPFSGELWLFLIMAMVLCAIVMYFIQFTAFGLENWRWHQTRKFHHTTRLGQALLDMFAVFIQQPSGPTSLRTFAARLFLATILCATITLENTYSGQLKSLLTIPLFTEAMDTLRKWSTTDWTWGAPSIVWVQSIEGSDIVLEQIMTKKFEVQSYGFLYNASFRSDYGVGIERLMSGSFAFGDYITPPAMETKIVIKDDLFFDWTRAVSIRGWPLMPLFDKHIRACIETGLFVHWERESVAKYLDRQSQEILLDLASGNIKKLPPQNLTLENISGAVFALLFGCLIATKVFILELIIYHLNKLKLLDIYRKR

>AludIR40a

MKVFILCLIVWPSRLVYGAITYNADRNISDVAIALSEIINGLKPRQLAILAAPQFHFATRHAPLPATAEIPTDSQLEGMQMDIDDFIYQLHKLNFKSVIYDKADLFFKFVEDSLLGSIESVNLIFSAPYELSARIQERKLSHRLSLFIFYWGAKHPPKANEVRFEEPMRAVVITRPRKKAFRIYYNQAVPDGVSNLRLVNWYDGDNLGLQKVPLLPNAATVYSNFKGRVFRVPVFHSPPWFWVNYENDSINSTMFEDYVDNDYAEFTEVNVTGGRDHCLLNLLAQHMNFQFVYIEAPGRTQGSLRSDDTGVENDSFTGGIGLLQNGLADFLLGDVSLSWERRKAVEFSFFTLADSGAFATHAPRRLNEAFAIIRPFKRDVWPYLILTVIFSGPIFYAIIAIPYKWHLPCQTLQANRQPRGRLQQRDVERDGELVFHMAYIKEITGDNELTRRLLRQQQQQLYKEQERRGRVPALTEIPHNLFDKCIWFTVQLFLKQSCKELYHGYRAKFLMIVYWIAATYVLADVYSAQLTSQFARPPHEAPINTLQRLQTAMLHDGYQLFVEKESSSLEMLENGTEIFRQLYALMKQQNPDMEGYLIDSVESGIMLIADGLENKAVLGGRETLYFNIQQFGSKTFQLSHKLYTRYSAVAVQIGCPFLDSLNDVIIHLFEGGILDKMTNAEYATQSRMLGKEYNNLHPAESEANGNNEPPPNDDNRNSNGGSDANNKGDESAEAASKSQDSQIIQPLNLRMLQGAFIVLLCGYAAATGILVLELCCHRLNSNLMERTEARMVRRYHWCCRKFRKITRTLYARILR

>AludIRdelta1

MDIILGDLGRGGIEKTGNYTLVLAIAWTILNVYGDFPSMPLVISQYASESQTYVHQAELIDALMTYLDQRQYRIYIMEQEKLFGHEERSEWGDFCEAAIWFIDSWNSFKTLATDLEDPKSSYKRTGWFLIIYTGTERERLDTVKKIFSRLFEIFVINVNVFLLIDTTPFVYTYFPFSPKKCHSAQPELLLSFRNRKAKQKFKDYRKFFPFKVGNLYGCELAIITWHHPPFMILKEDPKTGQIVSIEGMEGMLISILSEVMNFAIRIVIPQPKERGAVYSNGTLTGVAKMIAEGDGNITIIFNMYEKKRAQVMGASFSYMSFPLTVATPHGRPLSPLQRLLRPFKHIIWSLIGSNIILAVLIIYALKLLGSKQIVSFVFGKTNRIPFSNLWASLYGGVIHNRLPYRNFSRYLLGLWLLCTLVLRSAYTGQLFIILQDGRALTPLKSFQEIVDKNYIIYTADVLAELLDSTIENAILGFVDGGNNSMPLILKRIARGSKEVLTIIEPALHYYNYEQTTDAERVAILPQKLIMTPLTMYMRKHSYLITPINLHLYNFLDLGIINKFEKRYRLPKEAEESDEPVRLSLFLLLGIFSIYLALMGLCTLIFLLELWTTRSPLTKMVIDFFNY

>AludIR1

QHFTNETPSTIIGTTGADSKVADLLAQKMNFTMDLQWPDNDFFGARTKNGSYSGAVGRIVRFETDIILTGFFIKDYLTRKLAFSAPVYMDELCCYVKKASRIPQSILPLFAVNFDIWVSFIIVGLLSPFIWILLRHVNLGAIESNSLISQLPTLQPQERRQLTQKHILQYMRIYLDTWVMWVRVNIVCYPPFISERIFIVSLCLVSVIFGALFESSLATVYIRPLYYKDINTMKELDEANIRIYIKHAAMRDDLFYGHSSYIYQNLEKKLLLVAELEERLIDIMARGGKLAAVTRASSLELDDIYYFIKKKIHKIPECPKNYHIAFIFPNNSPLEKSINILLLKIVHAGLIDHWIGDMKYKAKIRSRNFAEFQEEIGDKWKVLTLNDLQLAFY

>ZtauIR25a

MPSAHLKFRKEILIFLKIISLASLATGQTNQNINVFFINDADNEPAAKAVTVVSTYLKKNPSYGISIQIDQVEANKTDAKTLLEAICSKYAESIERKQPPHVIFDTTKSGISSETVKSFTKALGLPTISASYGQEGDLRQWRDMDESKQKYLLQIMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPSYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQITSAFYFDLALRTFLAIKDMLQSGAWPKNMEYIGCDEFLGGNTPERNIDLRTAFTMVQEPTSYGVFELVTQPGKAFNGYSYMKFEMDINVLQIRGGNSVNTKSIGTWTAGLDSPLVVKDEEVMKNLTADTVYRIFTVVQAPFIIKDEKAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRNSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKTIDSVIL

GQAGKEYDKGGNTVLRPRFHQYPTTFKPRF

>ZtauIR8a

MWLLQKLVILVAFDYVCANDLKIAFWIDPLQSGIELDVASAVKEIKALQLETEIQYYVVTIENTGRQKEEKNMEKLCEHLATDGVSVVIDFTYHIWHNGLDLLRTYQIPFLRVDRILAPYLKMFSEFVLAKSGHECIMIFQNARDTEEAVIQVVEGYPFRTLIMNAFDKQDFIQRLRKIRPMPSCYAIFADGTAMNSIFDRISKANVFERPREWHFIYLDPRDRVFKFKKQVDFATKFTINPKTLCRSLRMKDAYCLSGFSLQRAIILEILRGLIELKQTNLYWLQTFVMECNYTSPNENGTNGFDILEQFPLNEFLYFTTDVRFPNDEFDHVPRLTYSPTININLYSSEHDAVTELAIWQNDNLRKINETISKPRRFFRIGTVEAIPWNYMKRDPKTDELILDAYGNPIWEGFCIDSIKKLSERLNFGYMLVPPTSGEFGRRDVINDSWDGIVGDLVTGETDFAVTALKMYSEREEVIDYIAPYFEQTGISIVMRKPVRQTSLFKFMTVLRVEVWFSIIAALVGSAIMIWLLDKYSPYSYRNNRAAYQYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRIMVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVEGSSTHQYFINMKFAEDTLYRMWKELTLNVTEDFQKYRIWDYPIKEQYGTILLAINGSEPVKDAKEGFRKVNEHENADFAFIHDSSEIKYELTRNCNLTEVGEVFAEQPYAIAIQQGSHFADELSYALLELQKDRFFEDLKAKYWNMSRIKACSVNEEQEGISLESLGGVFIATLFGLGLAMVTLVLEIIYYRRKYSAMHRFNEITKVKPASGTSIKQLLPKKKKKRIAVWHTSTSKRDNSPEHQTPPPAFDAVKFRGKKVPPSITLGGQEFKPRRAGLRQLSESLDSEEYRKEGIPANRDDELPPYTE

>ZtauIR93a

MRFHAFLWSLWLPLCLLALLPQNAEANDFSSFLTANASLAVVVDQEYMQRRGENILANFQKILSDVIRENLKNGGIEVKYYSWSQIRLKKDFLAAMTVMDCKSTWQMFDSTQQNSILLFAITDANCPRLPLNRAIMIPIVDEGQELSQIILDIKVQRLLRWKTAAVLLDQTILHDNPTLVESVVLESAKNHITPFSLLLYQIDDTLRSQKKRTAIRQMLNIFQDSTQTPRQFIVLSEFYEDIVEIAASMKLFHVYNQWVFFVLNEEQRSHDPMSVTQNLEEGANIAFMLNTTEPTCTNSINCTITELSMAFVKSISRMIVEEQSIYGEISDEEWEAIRFTKQEKQDEILGYMKEYLREYSKCTSCAHWKIETALTWGKSEEHRRYQSNLELRDTRNRNFEFIDVGYWTPTLGFNTHEVMFPHIVHFFRNITLDILTVHSPPWQILERNSRGDIVRHSGISMEILKEMSRLLNFSYILHEVKVNAADLAAEDMQHTNNVTDDLSGSLTFNIPYQVIETMQSSRYFMAALAATIDEPDKKSFNFTVPISVQMYTFISRQPDEVSRIYLFAAPFTTEIWGCLVAIIIITAPVLYFINRWVPMDHLRITGLSTLNSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFSSNAVQQFGLRNGSYFEKYATQITTRDDFRDYIQRATIYSNVQGEDIGAVQDGKRINVDWRINLQLIIQKQFEKDKECKFSLGRDNFVAEQIGLIVPRDSPYLQLINDQITRMFQMGFIERWHQINLPSMDKCSGHGGMRQIMNHKVNLDDMQGCFMVLLFGFIIALFILFVEYWYRWYFVERKKGVFAT

>ZtauIR84a

MPSRRAHTARRQIFATTLTCGHTSFITILILLLSKWNLCVLAAANVYEFRAFADVLKQQHLQHAIIAYNSDTEQTQQQAGLLKDNALRALLNVASLHFYDVHQAKSTKNYTDFERLFYHDSPRVGIYVAQLEDVLLQQYVLGSNVISVDTIDAGGYRVRVDVGARFNNSRVWFIMSKQRAVATALVNVRRVLTPLAVNISADITVGVRLVDNNTIELFDIYKIQKDWLEIEPKGYWSSNVGLKLNLPFHQTFVSRRRNFKGLTLVGGIVIREQPAGMDDLEYLNSLDYKNCDPMQRKTYQLMKLMEPVFDVSFQPILKEIWGEQSANGSWGGVMKLLLSGEAEFSLCPMRFVMNRVHLIHYTIAVHTEFVFFIFRHPRRNDIRNIFFQPFVEEVWYTVIAIIVITTLLLQLHMHHENRFFINKDPHFQTRFDYAILSILEAFFMQGPANDAFNATSTRTLIFSVCLFSLLLQQFYGAFIVGSLLAASPRTITNLEALYNSSLEIGIENIPYNIETFEKTTVPLGNAIYKERVCKNRERNIISIEEGAERIKKGGYAFHVSANRIYYMLKELLTEKEFCDLQDVPFIPPYRIGIGITKTSPFREYFTTSIANFHTSGLLQYNDNQWQLPEMDCSLSQNHEVEVDLQHFLPALIFLISAMLLSLAVLILEIIYYNLEHSARLARLCPRIMPRPKLEFIN

>ZtauIR75d

MKTFNFNPHFILLICCILRVATSSGAEPDEFASAEQTGHSIAEEPTTQSSDAQIFMEYFRWHGVHNILLIVCPQDAATSEEHHKLKTLLRQFIANGFSTRIFNGEDYDEGGGAPSAMKAQTEPEPVNTTVTPTVDSTRGAPALSRTTYGPPRTFRSDNSTRRPLRLQLPALTYKSGILLWRFGSACALNVLRWAAAPEHNYFTTNRFWLLHTVEPTHISLLEDEDIFLPPDGEVRVVFQQPDAQFFALVDVYKIAADRPLRRTSVGGRDLRDAGDMLQALSKFGSAISYRQNLEGLTFKTGLVIAFPDMFTNIEDLSLRHIDTISKVNNRLTLELANKLNLRFNTHQVDNYGWHQPNGSFDGLMGRFQRYELDFGQMAIFMRLDRIAIVDFVAETYRIRAGIMFRQPPLSAVANIFAMPFASDVWIAILLLMIFTIGIFMVELVYSPHTHEIDILDCVVFVWGAMCQQGFYANLLNRSARVIIFTTFVSTLFLYTSFSANIVALLQSPSEAIQTLSDLTQSPLEIGVQDTVYNKIYFNESTDPVTNHLYHKKIAPKGENIFMRPPVGMEKMRTGLFAYQVELQAGYQIISNTFSEPEKCGLKELEPFQLPMIAVPTRKNFPYKELFRRQLRWQREVGLMNREELKWFPQKPKCEGGMGGFVSIGITECRYALGIFGFGLLLSAFSFILELAVNYAWNLVKKIHRNKKQREASGATNGYTGDFLY

>ZtauIR76a

MSTLSPAVNHWTTLLNFIIQTYFIDSHATCILWHRDFPFELQTPANSEFIAYINIWPDNLSQQSLQQDIFNFTAFAETQLAYGMQPDALVQKLTIAIRETHCETFVAFQEDIPSFARSFYNASRISVWRSLRNKFLFVYRKDLQPDTAAYFDDSLFKDQPNVLIVEAECGNCTTFALKTNKFIGPLAEHPEQLYVLDRYNAVDGKFEYGVDLYMDKVKNLQGREVTVGLFDYRPFTAIDYDRQPQVKDHSTENIRGTVHIDGTEVRMLFALCEVINCTVDADTSEDDWGTSYANLTADGIFGLITSRKSQYIAGALYFWPDDYRYLDMSLFIGRSGVTCLVPSPHRLTSWLLPLRPFQLTLWLGVFASLGLEAIALFFTRHLAPSPTEPQYGLMESFQFGYITTLKLFVSQGSDYVVNSNTVRMVLFACYMMDTIVTSVYGGGLSAILTLPTMEEASDSVERLYRHGIPWTATSPDWVISLRGSGADRDVVVESLLENYHVYTYEQLTQFAKTENMGFILERLAFGHFGNVDFLTDESFKRLKLMIDDIYFQYCFAFVPRLWAMLPKLNEVIMSVHSTGLDIFWEWEVAATYMDGQQQEEIQASMYMDFDVGPVKLDMGNFIGLVLPLIIGIVFSVFAFIGELIYY

>ZtauIR75a.2

MELMLLNFILHHFLSANINSIVVLNCWSAQTQCDFSKMLNEHSLYSRFVNIESIDMSADFEYRYLLHNRPGMGAYLDMNCKSSEQVLSTLNRSRLYNAHYNWLLYDRTADLNNFRRLFADANLDVDAELTYAVLKPTLFGLVSDVNITTFVKYDVYNNGYNLGGKLNMTVDREVECNVTSCYIKRYLSQLHTRSKYGNRDKLHDITMRVSVVITQLPLTTPVPMMLDFLISENNSDVDPISRFGYRIMLIFKDLFGCKMRYTFRSHWGINETYGGSIGDLISCEADFLSTPFLSTAARVKYVSPLLETGGFSSICIFRTPRSSSMKGEAFVQPFDGSVWLVFVILLIVVAIFLWYTFILEMRNFRTYLPYTPSLLSTGLLAFGSACYQGSHIVPSSVGGRLAYLSLYLATFIVYNYYTSILLSTLLGTPPKSDIKTLGQLADSSLTVSLEPLPYNYVYLNASQLPDVRRFVSRKIESRKNPQKVWIPVKEGVLRVRDEPGFVYVLETSYAYPFLERNFLPHQICDLNEVNLRPDKSLFTQLHKNSSYRELTRIRGIRMLETGVFRKHRRYWVRNKLNCVPSNYLFAVGMEYTAPLFLMLAFSYILCLLLLGLELLIKRLSA

>ZtauIR75a.1

MDLKLFNLILYYFLKLNMKVLVSFNCWDVETQLAFYKLAAENSFYIDYINLNDSKALQGIEYRLIAKKPTMGIFMDLNCENAEELLNIASQERLFSDHFFWLIYDDMANVTYFRGLFKRQNLAVDAEITYAYLNTPEDDGNSTAIASYTLYDVYNNGYYHGGKLNMTLDREIYCNQEECYVNKYLSKLHLRNKYGNRNTLHDATLRLTVVVTKIPITSTPEQIFAFLRSVNGTNYDAIARFGFQALSILVEFLGCKTNHTFVNRWTINETHGGLIGALAIQSADLISTPFIPTAPRMEFFTIIAETSSFRSICLFRTPRNSGIQGDVFLKPFNTTVWSLFGVLLLLTAVVLWSIFRLERYRMYKRYIDYMPSLLATFLISFGSACSQGSDMVPGSIGGRMVFYTLYLLTFLMYNYYTSIVVSSLLGSPVKSDIKTMGQLADSSLEVGLEPLPFTLTYLNNSLLPEVRRFKHKIDSVPNPQAIWMPLEKGILRVRDQPGFVFGFEASTGFLLVKRYYKPYEICDLNEVLFRPEKSLYSAVHKNYSYKEITKQKVIRILETGVNLKLHRYWVQTTLECFDSNFIVEVGMEYMAPLFMLLACTYVLVLMILLCELHKKYWTERKMRLENILFGQNWHNE

>ZtauIR64a

MKLFLKSAKAKTKATKTTHKNVLNMCMPSMQQRSLTTHQHRVPRRCWRVATRTPECFNNKIKMALLILIWTAIWCRRECVAAERHSNQAVYENNKSNNISNLHEQLEINAVDDNVDVEVLLGNVEVELSRVVAPIDLVDEGSLEQVLFKRDTAKATDGVSEELNATTGYEFTTLDAATTGVADTKRMMTQQITEIQTETETETTTTANDINSVATTMNSSVEINEYENVKNNGNENVERAKVVDRKIIAATTTRTAATALFAESDTATAAATPQTGEQQNIAAEGRESEKEEASAPEMQAEDGEEPVDVTAALQQQLIYEFAIKYKHIPRVTYFTCRWQSSEGSGGNTFGEQMTYLNMQTLEMMQRMYGSAAVDKMRSESDAKAKEKAKKASAPTTTTARAAPLSKAVETNTRKVRSNGNTRSKRTTTAAVTRAQTAAVLPLNNGNVTQSGKGSNRASRVTSDASAATTAAQWDILIKVVHIDQLINKRPTAANNKNGKNNRSYNWNVQRTFGGGFAAGGGYGRSAAGNAGARNAYTNANWLAQVLRDDGSRQLVVLNLACGAASRRLLEMASNKALFNATYHWLLIEDYTFNRNADIDDNVDNDRNGNNNENANCKRTSAHQYNETVDSDNNSNNNKFSEQTETQQLQESKEEMKKKQRKELTATTSITPRPKATLTAAAALTVTANNENTMEIIEKYLQKLNININTELILAKRHTRRIRDDAAQIGDNKKCAATNDDAADGGGSGSGGCCTSSDSESATNNTLQRKDYYQLYDVWNPGLQYGGQLNISEIGYFALDDGLQIALWYRRSTTITRRMDMKMARIRCLIVVTNKNHTDTLEHYLTTHYDTHVDSMNRFNFALLSNVRDLFNFSFVLSKTASWGYLKNGKFDGMIGALVRKQADIGGSPIFFRIERAKVIDYTTRTWVARPCFIFRHPPSTKKDRIVFLQPFSNMVWILLGLCGIFTICLLWLLTSVERRLEAVGVVEQLGHSTRSSSGSNMHSNATNNKQLCAIGGNDELPPPVGCRCSTRMPLSAGTMPSCGACNAPSVGLATKEQRKQKLEKLMQRRGKTEARRKNVHGISCRRCMLGCGSACCGQTGSVAAQQRTGLFFESVLFYVGSICQQGLTFSTSFFSGRCIVITSLLFAFAIYQFYSASIVGTLLMEKPKTIRTLRDLIHSSLAVGVEDIPYNRDYFLRTKDPIAIELYAKKVTSVPTDNEALSETTADNVTTLSPLQPGVELTAAEKAKTYREILHSHETGAHAKTNEASNWYEPEYGVKRIRKGKFAFHVDVATAYKIIADTFSEKEICELTEIQLFPPQKMVAIVQKGSPLRKTITYGLRRVTESGLMDYQRKVWHSPKPRCVKQIHTDDLRVDLQTFASALLVLIFGYAVSLLALSIEIIQHKLWQRYRAEQEDEEENE

>ZtauIR41a

MLPTNLLYSFYWSRMFNVIMQNYLLSTTTCIIWPENEDFSISWQQDKPPDAAIISIRLHDLAQSFSKDVVDFAAKREELLNDYVVLNPFVEKLTLSIEKSHCQNFIAFQMDIPIFIDAVINASRFSIWRSSNNKFLFVYNKDDLLQQLFEHRFFEDQSGILLIERSIIDPAVFDLKTNKFVGPRADNPKQLYLLDTFHAETNTFLHGNDLFPDKLSDLQGREVILAAFDYRPDVVLKYYPGAPSRDRAFAANDTSGDVELDGTEERILKTFCEKHNCSVDIDTSEADDWGIAYRNMTGEAALGMIARGKAEVGMSAMYTWYADYVALDMSMYIGRSGITCVVPAPKRLASWLLPIEPFQPALWAFVFVCLCVEIIALLFIDHARPIIIALSERMRASEEQQNSWVRNFQYAFTTTMLLFVSQSNKGTMVNFTPLRVMLFASFLNDIVITSIYGGGLSSILTVPSFGQAADSVERLYAFQLKWGADSEAWV

AGIRDDESEIMKGLLRNFDIYSAEQLMELAQTEEMGFTIERLPFGHFAVQEHLTRSVLGKMKIMVEDIYFQYTVAFTARMWPLLEGFNEMVVMWHSSGLDKFWEWRIVADNLDGAIQKELMASQYSNLDDIGPVKLGMSNFVGMLLLWLLGITCAFLAFLAELLMDHMKRSKKMEEFEVIEIGEGSV

>ZtauIRkainate2

MKFVLLHITCALLYASAYAAEERPKFNVGIIFASKNDETEIAFRTAIERANVFERSFELEPIVEYADTDDSFMVEKTVCKLIAQGVIAIFGPNTAGGTDVVTSICNTLDIPHIVFDWTPSEALSNRQHSSMTLNVHPNNILLSRGLAEILQSFSWRSYTIIYETERELQQLQDILQVGEPSSNPTSIRQLSEGPDFRPFLKNIKLSTDNCIVLHCSTDNVMKILNQANELKMLGEYQSVFVSVLDTHTLDYQELLTVTANITTVRLMDPTDYQVKNVAHDWEEHEKREGRYYRADPSQVKTNMILANDAVTMFVKGLAELGIAEELNPPKLECRKNRAWAHGRRIIEFLKARSVEGATGRVDFNEYGERNFFTLRFMELTPAGFLDLSTWDPVNGVDALEKEDASEKRVGEKLSNKTFIITSRIGAPFLLNREPKDGEILQGNARYEGYSMDLIDAIARLLNFKYEFVLAPDGKYGSFNKLTQSWDGLVKQLLEGNADLGICDLTMTSTRRQAVDFTPPFMTLGISILYAKPEQPPPDLFSFLSPFSLDVWVYMATAYLCVSLLIYGLSRMAPADWENPHPCKEPEEVENPWCMSNTTWLAVGSIMGQGCDILPKAASTRLVTGMWWFFALMMLNSYTANLAAFLTMSRMESSIESAEDLAAQSKIKYGALLGGSTMGFFRDSNFSTYQRMWTAMETARPSVFTKNNDEGVDRVLKGKGRYAFLMESTTLEYIIERNCELMQVGGWLDYKTYGIAMPFNSPYRKQISGAVLKLGESGMLSELKRKWWKEMHGGGSCSQTESSGGDTPELDLENVGGVFLVLGIGLLTAILIGMCEFLWNIKAVAIEEKISLSEAFKAELMFALRFWIQTKPVHTASTSSGGSSSSSSSKSSKSSKSSSSSSSSASKRSKRSSKSYARSISQSTKSITNATHDPDKNDLSVHDKLRKISSMFSLKSARSEPSVANVHLEAPPALKHNSHHNHNPVNKSTHTPMVREVAQQTTLTTDDGEEEQAPQLKIDEIPIVEPHHHHNHNHHHHHHHHRHHEHNHQQPEEDHQPAIPLIERTQNGKVARNGHAGFGNAEV

>RpomIRkainate2

MQLRSDNLIVLVFLVQYTRIGHCDAQSRRYSSRGNDYEDNRNGASGTIPIGLITDQYTEQMGLIFEHAIEVANAELETPLKAVKEEMNYGDSFQAYGVLCKLLKDGVGGIFGPSSRHTAKHLSTICDTKDVPYFFSDMNENSEAFNLYPHPLDLSKALYFLLSAYEWSRFIFLYESVEYLDILNGILAFYGTNGPTITVLRYDMELNGNYKTGLMRVRKSGDSRIVVAGSSDTMPEFLRQVSTMSISADRYLPQLYHNPKNTYIPHSCIGYQDLTRTKYTVLFYYGSSAVLRSCPITLSMALIYDSVQLFAETTKYLTVQTVPLNCSDRSESVLDDGSTFKNYMRTLNLKERTITGKIYFEGNIRKGYALDVIELHPSGILKIGTWDEISNLTIQRVPQTNSVIDNVDNSLANKTFIVLLNVPNKPYASLVESYEKLEGNSQYEGYGVDLIKELADKLGFDFILKNGGNDYGSYNATTNTTSGMLKEIIMGRADLAITDLTITAARQQVVDFSIPFMNLGIAILHLKAQKAPPAFFTFMDPFSKEVWWLLGLSFLLVAFSFFILGRLSPSEWDNPYPCIEEPTELVNQFTIGNSLWFTTGALLQQGSEMEPKAISTRTVAYFWWFFTLLMVSSYTANLAAFLTIENPTSLIDSIDDLAENKHGVLYGARKVGSTREFFEKSEDPRHIKMNKFLNSHPELLTNDNMEGVNRVDMTYAFLMESTSIEYNTMRLCHLRKVGDALDEKGYGIAMRKNWPYRDRFNNALLQLQEQGSLEKMKNKWWNEVGAGICTVEYN

>RpomIRkainate1

MKVLLHVLLSCMLFQLTAQLTTAFEVVKIGVIFFNDEWELVSAFDTAIRDINELEMDVRLEPIKHFISYDDSLTLQELACDLIDNGAAAIFGPSSKTNSDIVEVICNTTGIPHLQFDWHANEAYGGHSRNHKLTVNVAPTEQMLSCAFLDIMRMKQLDWKSFTIVYENSRSLARMQRLFGWRQLHKAGIKLWHFNRGDDYRVIWKLISNSREKYVVLDCPSDIITEVLNASIYFNMTGQFNHWFLTSLDTHTSNIRSLYSRNFVANMIAVRVRPYMPPPVHDEADVFENEQEDQIITIRSKLLYDAIVLYFNALRRQIRNLHYQAPKVRCHRGYWRTGLELLDQMKLLTSRNVTPPYKTQKMQLNKYGEREEFNLEIYNPMVERITHIWNKNKNLVAFEDLVEAKEMKKQKYNEVEDFTPKRVKYTVATRIGEPYFMWRQEPEGVHYEGNERFEGYAVDLIYSLAQQCKFDFVFEPVPDNNYGSYDPITDEWNGIIRQLIDNNAQIGICDLTITQARRSVVDFTVPFMQLGVSILFYREPPPPKNLFGFLSPYSLDVWIYLLVAIMITALVLVVVGRVSQLDWISPIPHDPDPAEVENIWNLSNSLWLNIGSILNQGCDILPKGPAMRLFTAFWWIFSLLLSQTYIAKLAAFITASKMESSITNLHGLIDQNKIQFGMLKGGSTSFLFSESNESEYRLAWNKMVAMKPDAFTSNNREGVDRVKRSRGRYAYLLETTTLQYYLNLNCELKQIGEPFNEKHYGIAVPLNAPFRSNLSVGILKLSEKGELYKMKRKWFTTNETNCDVDLDEDADNGQYTMESVGGLFIVLIGGILVSILIGIFEFLWNVEQISVKEKLPTMVIFKAELKFFLRFWQTRKPLRTYAESRGSTSTGYSSFEQTASTSTAKKKRKKKSKKIHEQ

>RpomIR25a

MHKSSCKRLYSIFIILKILSFTSIATGQTNQNINVFFVNDADNEPAAKAVTVVTTYLKKNPSYGISIQIDQVETNKTDAKSLLESICSKYAESIDRKQPPHIVFDTTKSGIASETVKSFTQALGLPTVSASYGQEGDLRQWRDLDESKQKYLLQVMPPADLIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITGIAKEGKREREEQIEKLRNLDINNFFILGNLMSIRMVLESVKPSYFERNFAWHAITQSEGEVSSQRDNATIMFLKPMSYAQNRDRFGRLKTTFNLNEEPQIMSAFYFDLALRTFLAIKDMLQSGAWPKNMEYLGCDEFQGGNTPERNIDLKAAFTMQAPFIIKDETAPKGYKGYCIDLINEIADIVHFDYTIQEVEDGKFGNMDEKGEWNGIVKKLMDKQADIGLGSMHVMAEREIVIDFTVPYYDLVGITIMMQRPQVPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPINGSSAMTYFQRMANIEQRFYEIWKDLSLNDSLSPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPATLEEAVERVRSSTSATGFAFLGDATDIRYLVMTNCDLQIVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDETQAKCDKPEDQSDGISIHNIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIVDVIEANSGGKDGKGGDGVILGQTGKEYDKSGNTVLRPRFQQYPATFKPRF

>RpomIRNMDA2B

MKGLIFSQKANKRRRRKNVKSSQTPTGSIALARRRVKTKTMARICIATTATKTQEHNSNSNNAQLAAPLICFNSNSCNGIANTNSRRSSSFGSNLVPTFNQQHHNQHHHHQQCLAPGQLTLKMPPYMPPIFKTTTIQIASQRIRSIDVVEVEEQLHHQQQQQQQNQLKSVQNHCFAHQHQQLQCQPLSLSPPPRFASSHRPLQLLPAATTASWPTLIWRTLSSRLNFHFGIAVIVLASILMYSCPCASALRLTNGNTKTLSANKEQLNIGLIAPHTNFGKREYLRAINTAVQGLAKTRGAKLTFLKDYSFEPRNIHFDMMSLTPSPTAILSTLCKEFLQANVSAILYMMNNEQFGHSTASAQYFLQLAGYLGIPVISWNADNSGLERRASQSTLQLQLAPSIEHQSAAMLSILERYKWHQFSVVTSQIAGHDDFVQAVRERVAEMQDHFKFTILNSIVVTRTSDLMELVNSEARVMLLYATQGEAVTILRAAEEMKLTGENYVWVVSQSVIEKKDAHSQFPIGMLGVHFDTSSAALMNEISNAIKIYAFGVESYLTDPANRGRRLTTQSLSCEDEGRGRWDNGETFFRYLRNVSIEGDLNKPNIEFTADGDLKSAELKIMNLRPGANNKNLVWEEIGVWKSWETQKLDIRDIAWPGNSHAPPQGVPEKFHLKITFLEEAPYINLSPADPISGKCLMDRGVLCRVAADHEMAADIDVGQAHRNESFYQCCSGFCIDLLEKFAEELGFTYELVRVEDGKWGTLENGKWNGLIADLVNRKTDMVLTSLMINTEREAVVDFSEPFMETGIAIVVAKRTGIISPTAFLEPFDTASWMLVGIVAIHAATFMIFLFEWLSPSGYNMKLYLQNTSVTPYRFSLCRTYWLVWAVLFQAAVHVDSPRGFTSRFMTNVWALFAVVFLAIYTANLAAFMITREEFHEFSGLNDSRLVHPYSHKPSFKFGTIPYSHTDSTIHKYFKDMHLYMRQYNKTSVAEGVAAVLNGNLDSFIYDGTVLDYLVAQDEDCRLMTVGSWYAMTGYGLAFSRNSKYVQMFNKRLLEFRANGDLERLRRYWMTGTCRPGKQEHKSSDPLALEQFLSAFLLLMAGILFAALLLLLEHVYFKYVRKRLAKKDGCHCCALLSLSMGKALTFRGAVFEATEILKKHRCNDPICDTHLWKVKHELDMSRLRVRQLEKALDQHGIKPPQLRLASSSDLLNHHHLKERPPLLGNLSLAASAQDLYRWFRNS

>RpomIR75a

MNPLLLNFILHHFWNANINAIVFFNCWSLQTQQHFMHMTNERMWYTRFVNIESMDLFGDFEHRYLLHSRSILGAYLDMNCNKSEDVLNTLSRWSLYNQHYNWLLYDRTADMHNFKRLFVNASLSVDAELTYVILKPALMDANTDTNTTCYTTYDVYNNGYALGGELNVTVDREIQCNLQDCHVRRYLSDLHLRSKYSNRLRLHDVTMRVSTVVTKRPLSLPPPLLLEFLNSEYNTEIDAISRFGFRVLLIFKDLFGCNMEHTFRDRWSMNETHGGIIGDMITKDADFVSSPFLSTKPRQKHLSLMAVTGAYRQLCLFRTPRSTSIRGEAFLQPFDTSVWVVFSIILGLLAIFLWRTFALESRNFRQRMPYEPSLLATTLLAFGSACYQGSNIVPFSLGGRLAYFSLYFATFIMYNYYTSTLLSTLLGTPVKSDIKTLGQLADSSLEVGLDPLPFTFVYLNASQLPEVRRFVYRKIASKPHPEKVWIPVEEGILRVRDDPGFVYVLETSTSYPFLERSFLPHEICDLNEVLLRPDRGLFTQLHKNSTYKELTRLRVSRMMETGVWRKHRRYWVKEKLNCVPGNFLFAVGMEYTAPLFLMLLFSFALCLVLLVLELGIKYLLDHQRDNTIGFWRSDLAEGFIE

>RpomIR93a

MRFQASFWLLILPLCLSLLPQTIEANDFSSFLTANASLAVVVDQEYMQQREENILANFHKILSDIIRENLRNGGIEVKYYSWSQVRLKKDFIAAMTVMDCKSTWRFYEYTQQTAILLIAITDANCPRLPLNRAIMIPIVDEGQELSQIIFDIKVQRILRWKTAAMLLDQTILNDNPTLVESVVHESAKNHITPFSLVLYKIDDTLRSQKKRTAIRQTLANFLDNARTARQFIVLSKFYEDIVEIAASMDLFGVFNQWVFFVLNEEQRNYDAMSITQNLGEGANIAFILNSTVPSCVSSINCTISELSMAFVTSISRMIVEEQSIYGEISDEEWEAIRFTKQEKQEEILGYMKDYLRANSKCSSCSHWKIETALTWGKSEEHQRYLSNMDLRDTRNKNFEFIDVGYWTPILGFITHEIMFPHIEHFFRNITLNVLTVHSPPWQILERDNRGDIVKHSGIVIEILKEMSRMLNFSYNLQEIKVTAIDLVADDVQQVGNITDDLLGSLTFNIPHQVIETMQSSRYFMAALAATIDEPEKKSFNYTVPISVQPYTFISRQPDEVSRIYLFTAPFTLEIWGCLVAIIIITAPVLYFINRWVPMDHLRITGLSTLKSCFWYIYGALLQQGGMYLPKADSGRLVIGVWWIVVIVLVTTYSGNLVAFLTFPQFQPGIDYFFQIFASSDIQQFGLRNGSYFEKYSTITTRDNFRDFVQRAIIYNNLQGEDIGAVQQGKRVNLDWRINLQLIIQRQFEKDKECKFSLGRETFVDEQIGLLVPRDSPYLQLINDQITRMFQMGFIERWHQINLPSMDKCNGHGGMRQITNHKVNLDDMQGCFMVLLFGFMIALFILFCEYWYRWYFVEKKKADFAY

>RpomIRdelta-1

MDIILRDLGRVEWERTGNYTLILAIAWTILNVYAKYPSTTLIISQYASELQSNLHQAELIDALMVYLEKRHHHVYIMEQEKMFDDVDRSEWGDISDTAIWFIDSWNSFGALAKDLDHPQSAYQRSGWFLIVYTGTEPERLETVKNIFSRLFELFFVNVNVFLLMDATPFVYTYFPFSRTKCHSAKPELLMSFRNKRPRYIHKSHRRFFPPKVNNLHGCELGVITWHDPPFIILKTVDETGHIVSIDGIEGMLISLLSEAMNFGIRIVDPQPHDRGAIYANGTLTGVTRMIVEGEGNISIIYFMYEKKRAQIMDASCSYMAFPLLVAIPPGRPISPLQRLFRPFKYIIWSLIGSNLVLAVLIIYALKLFGSKRVVSFVFGKANRFPFSNLWASLYGGGVIHNHLPYRNFSRYLLGLWLLCTLVLRSAYTGQLFIMLQDGRALTPLKTFQEIFEKKFVVNTAPVLAELLTSVMGNVAVVNIDGGNNSMPMILKRIARGSKEILSIIEPAVMYYNYQQETEDERVAILPQKLIMTPLTMYMRKHSYLTIPINAKLLDFIDLGIINKFENRYRLPDSGEVSQEPVQLSLFLLTGIFGVYLVLMGFCTLVFLLELWTTRSPLAKMAIDFLNYYWKGQLIFFEYILKESRRNVAFIGPSDFLYNYMHAEKKHAFFKILKQKVLNLHTTIYLTKHSYLIDEFQNQILWVQAAGLIDAWARWELYDDKKDLSGFGEDDMQQAKELYVLIIIGTYEGKMG

>RpomIRNMDA1

MKALIDISTACLLVCSIHLGAIAQKHIQHSDNPSTYNIGGVLTDPDSEAHFRTTIAHLNFDQQYVPRKVTYYDKTIRMDKNPIKTVFNVCDKLIEKRVYAVVVSHEQTSGDLSPAAVSYTSGFYQIPVIGISSRDAAFSDKNIHVSFLRTVPPYYHQADVWLEIMFHFGYTKVIIIHSSDTDGRAILGRFQTTSQTNYDDIDVRATVEMIVEFEPKLDSFTEHLIDMKTAQSRVYLLYASTEDAQVIFRDAALYNMTEAGHAWIVTEQALHANNTPVGVLGLVLEHAKSDKGHIRDSVYVLASAIKEMMSNETITEAPKDCGDSGVNWESGKRLFQYLKTRNITGETGQVAFDDNGDRIYAGYDVINIREKQKKHVVGKFYYDTEKAKMRLRINDSEILWPGKQKKKPEGIMIPTHLKILTIEEKPFVYTRRLTEDEVNCDEDEIPCPLFNATDGSENENCCRGYCIDLLNALSHRINFTFDLALSPDGLFGHYTLKNVSSSTSGAITSRKEWSGLIGELVNERADMAMPLTINPERAEFIEFSKPFKYQGITILEKKPSRSSTLVSFLQPFSNTLWILVMVSVHVVALVLYLLDRFSPFGRFKLSHTDSNEEKALNLSSAIWFAWGVLLNSGIGEGTPRSFSARVLGMFWAGFAMIIVASYTANLAAFLVLERPKTKLSGINDARLRNTMENLTCATVKGSSVDMYFRRQVELSNMYRTMEANNYDTAEQAILDVKKGKLMAFIWDSSRLEYEASKDCELVTAGELFGRSGYGIGLQKGSPWTDAVTLAILEFHESGFMEALDKHWIFHGNAQQCELFEKTPNTLGLQNMAGVFILVAAGVAGGVGLIIVEVIYKKHQVKKQKRLDIARHAADKWRGTIEKRKTLRASLAMQRQYNVGLNANPGTISFAVDKRRYPRLGPRAPEQAWKSDADILRSRRYMDETTKGVNSPAIHVPMLGKVRSPGNMLPPRNMLPPRYSPGYTSNVSHLVV

>RpomIR1

MLNGLKLFTFLWLAHAAANTWMNFNGVQAQPSSLTEKIPLGAIFEQGTDEVQSAFKYAMLNHNLNVSSRRFELQAYVDVINTADAFKLSRLICNQFSRGVYSMLGAVSPDSFDTLHSYSNTFQMPFVTPWFPEKVLTPSSGFLDYAISMRPDYHQAIIDTIQFYGWRKIIYLYDSHDGLLRLQQIYQGLKPGNESFQVEMVKRIANITMAIDFLHTLEDLGRFNNKYIVLDCPTEMAKQILIQHVRDISLGRRTYHYLLSGLVMDDRWESEIIEFGAINITGFRIVDTNRRFVHDFLDNWKRLDPATSMGAGRESISAQAALMYDAVFVLVEAFNKILRKKPDQFRNNIQRRGQQTLMAAASTSINGTMGMTGGGNAGGMGSGIGGSGGGGGGGGGGGIGPGGGSGGSNTPRALDCNTSKGWVNPWEHGDKISRYLRKVEIEGLTGDIKFNDDGRRVNYTLHVVEMTVNSAMVKVAEWSDDGGLQPLSAKYVRLRPHVEIEKNRTYVVTTLLEEPYIMLKRPSIGEQLDGNDRFEGYCKDLADLLAKKLGINYELRLVKDGTYGSENPTVRGGWDGMVGELVRREADIAIAAMTITAERERVIDFSKPFMSLGISIMIKKPVKQTPGVFSFMDPLSQEIWMSVIFSYIGVSIVLFFVSRFSPYEWRIVQYQTDSHAHHEQMANQQPPGIIGGNRLSQPSSHVPNSPVNEFSILNSFWFALAAFMQQGCDISPRSISGRKVGAAWWFFTLILISSYTANLAAFLTVERMVTPINSPEDLAMQTEVQYGTLLHGSTWDFFRRSQIGLHNKMWEYMNSRKHVFVSTYDEGIRRVRTSKGKYALLMESPKNEYVNAREPCDTMKVGRNLDTKGFGIATPIGSPLRDPINLAVLSLKENGELIKLRNKWWYDKTECNLNKDNQETSRSELSLSNVAGIFYILIGGLLVAVFVAIIEFCFRSKTSTQKANGSMLSSASGGGSHQRNSLTDAMHSKAKLTIQASREYDNGRVGITGDLDGTLGGYTAIRLLGDIFVMAALTLLNTAIVIAVRETSEGRGEVCRQYVWGAIAYVPLFSPIDLFAFSSDSKHDAALVALILVIVCLLIGALVLLFASQMPLSPPEWWGGTQRPACSSIPCRQYVAIALKYSCLHLSPYYSAHSGAAFTVFSFGHSAIRMRSPILG

>CstyIR25a

MVFSYFNIFKIIFFIILEISVKDKVVRGQTSQNINVLFINELDNDPATKAIETVQTYLKKNSNYGLSLQIDKIEANKTDAKALLESICTKYAQSIENKQPPHIVFDTTKSGVASETVKSFTQALGLPTVSASYGQEGDLRQWRDMEENKQKYLLQVMPPADIIPEVVRSIVRKMNITNAAILYDDTFVMDHKYKSLLQNIQTRHVITAVADGERARADQIERLRNLDINNFFILGSLKTIGQVLESVKPAFFERNFAWHAITQNEGEVTSKRDNATIMFLKPVVYPQNRERLGLLRTTYNLNEEPQIMSVFYFDLALRTFLAIKEMLQSGAWTANMEYLGCDDFQGGNTPERNIDLKQYFIQVTEPTSYGDFELVTQPGQTFNGYSYSKFEMDVNVIQIRGGNSVNSKSIGTWTAGLDSSLTIKDEEAMKNLTADTVYRIFTVVQAPFIMRDETAPKGYKGYCIDLINEIAEIVHFDYTIQEVEDGKFGNMDEKGDWNGIVKKLIDKHADIGLGSMSVMAEREIVIDFTVPYYDLVGITIMMQRPSTPSSLFKFLTVLETNVWLCILAAYFFTSFLMWVFDRWSPYSYQNNREKYKDDDEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFERMANIEQMFYEIWKDLSLNDSLTPLERSKLAVWDYPVSDKYTKMWQAMQEAQLPSTLDEAVARVRNSTTATGFAFLGDATDIRYLVMTNCDLQVVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDEAQAKCDKPEDQSDGISIENIGGVFIVIFVGIGMACITLVFEYWWYKYRKNPRIIDVAEANTPPGKDVKLAEGVILGQSGKEYDKANAALRPRFNQYPQNFKPRF

>CstyIR8a

MSFIRVAVVLLSFLNKVQCNDLNIVFWVEPVQKDIYSDINAALKEVDNLHLEAEITDAVMVVESSGGDNNDAEEVNNRNMKTFCDILSTLEVSIILDFTYHPWHQGLDYVQSHNIPYLRVDRMLKPFLQAFSEFLTQKGGNDVVLILQNEQDRMEALLQVVEGYPFRTLIMNAGDNNVDFVQRLKDLRPSPSYYAIFAKGTNMNAIYEKLSTGNVFLRNPEWHLIYLDTKDRVFKYKKQVEKANKFGLNPRSICRSMQMKDAYCLSGFTLQRALLLDIFRSLIDIRQSNLDWLKPLAAECNSTSEEADPFVSNFEILDHFRLTNFMSFATTNPANQLEDEVDVIPPLTYTVNMTITFYSSEHDAVTDLANWQNGELKKLIPTINPAKRFFRIGTTEAIPWSYYRRDPETGEKILDSNGKPTWEGFCIDFIETLSEKINFDYELIDPAKGKFGKRDLETGKWDGIVGDLVSGETDLAVTALKMYSEREEVIDFIAPYFEQTGISIVMRNPVRQTSLFKFMTVLRVEVWLSIIAALVATAVMIWVMDKYSPYSSRNNKDAYPYPCREFTLRESFWFALTSFTPQGGGEAPKAVSGRILVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVDGSDTHQYFINMKFAEDTLYRMWKELALNASRDFHKFRIWDYPIKEQYGHILLAINSSMPVKDAEEGFRKVNEHENADFAFIHDSSEIKYEITKNCNLTEVGEVFAEQPYAIAVQQGSHLADELSFALLELQKDRYFEELKAKYWNHTRANCPLSEEQEGITLESLGGVFIATLFGLGLAMVTLALEVFYYKKKLNKTSIKGSITQVKPLDSSQKDTDVWHTVKEKKNPTPPPSFETATFRGRKIPDGITMGSEFKPSRLGLQAH

RRLGSGDTLKESELPAYVE

>CstyIR93a

LGTLTYIIPFQVVELLQSNKFFMAAVAATVDEPDKKHFNYTIPISIQKYSFISRKPDEVSRIYLFTAPFTLETWASLICVILITSPVLYVINRLVPTQDLKVKGFCTVKNCFWYIYGALLQQGGMYLPQADSGRLVIGFWWIVVIVLVTTYCGNLVAFLTFPKFQPGLDYFFQLFKHNEYEQYGLRNSTFFEKYAMVSTRNEFHRYMEHAIIYNNMKEENIDAVKAGSRVNIDWRINLQLIIQNHFEKDKECTFALGKENFLDEQIALMMPSNSPYLNLINEQITRLSQMGFIERWHQSNLPSMDKCNGRGVLRQITNHKVNLD

>CstyIR92a

NYKYRDINFELWTQQYGGAEGNLNAIHLDTYISGNGTFAKNLQLYPNKLWNLQQRTLRIGSLTYVPYVKTYYVPTGEGDVDSINSKGPPKTVQFIGVEAELMKSFCHIRNCHLRVEPYAADNWGIIYDNGSADGMLGDLYKQRTEMAIGCIYNWYNDITETSQFIARSAVTILGPGPAQFPRWRTCIMPFSFGLWIFLAFTMIMCSLMFHFIKYTSYRFKHIYSARPNKYRSAKNYEKTLLDIFAVFIQQPSADTVLHRVATRIFLAFLLSATITLENTYSGQLKSILTMPLFNKPVDTMYKWSLTGWKWAAPSIIWVHTVENSDLAMEQRLAKQFEVRDYEFLYNATFWDNYGFGVERIYSGSFSFGDYITGSALENKVVPKDDLYFDWTRAVSIRGWPLMPLLDRHILFCLETGIYIHWERRFSYKFLDHQVQDILKMLASGSKPNSPPQKLSIEHISGPLFILLFGYILAFLVLMIELFGNRLNLKFLAGGRYLIKMN

>CstyIR76a.2

QAFPKASTYSIWRSMDNRFLFAFNKQQQKQDYFQASFFKNHANILVLEADYLNSSVFQLKTNKFVGSSTQQPEQLLYLSTFYALNRTFVPLIDLYAKDKLNNLQGREIIVGAFDYRPFVAVDFKRLPQYYDLAADNPSHLVHVDGSEIRMCHTFCALYNCTLQFDTSDKDEWGLAFDNYTGYGLIGRIIEGKIHVAMCAMYAVHSDYAAIDMTAYLGRSGVTCLVPAALPQVSWYLPLRPFRLTLWLSVLACLCLETVVLFLARQFEQSLANKPDSWWSCLEFGYMTTLKLFINQNSDYSVESHTVRTLLFACYTLDIILTSVYGGGLSAVLTLPTLGETADSVEKLYKYNLSWTGSSLAWLESINGTHEDKNSLYKRLVDNFVLQSMEEMRSKVKTVNMGFVLERLTFGHFGGGDFITPEALQRLKLMVDEIYSQFTVAMVSRLWPHLSKFNDLSLRWHSSGLDKFWEWKSTAEYLNVNEQNQVEASKHINYDMGPTKLNTQNFAGVLVLWSVGMLMSVLAFGAELAWFRLGRRMKDKHVCAIKKREKTIILANAKNSVEN

>CstyIR76a.1

LSYFYFSIDNMLPAANYWPVLINILIQKYLSHLTTTCILWHADFEVILEPAISYNVLLHINAKHLNASFSRDVYNFTQQDEYFNGNLVYYDDLVKKYTAAISNTYCEGYLVFQDDIPLFAETFRKASLYSIWRSIYSRFIFVYVKDQQEEDYFQDILFKNQASLLVVEADSLNSSTFALKTNKFVGPRNEHPEEMFLLSTFNALNKTFTPDIDLFSNERLMDLKGREVRVASLDYRPFVAVDYNRSPFYYDQAEDNPRHLVHVDGTETRVCHTFCELYNCTVQFDTSEKEEWGTSYTNFTGNGLMGLIMSGKVDMTSGAMFAWNTDYMNVDVTHFLGRSGVTCLVPAPRRIVSWDLPLKPFKMTLWVVIVAVLIVESVSLLLARQFEQTMEYPENKHQWMSSYMFGFISAFKLFLSQGTDYVVQGDTLKVILFACYMLDIIITSVYGGGLASILTMPILEEAADSVERMYTHNLKWAATSYVWVESIKDVDDDPIIMRLLANFKTYKFEDVREMAKTEYMGFAVERLEFGHFGNFDFITPESINRLKLSLDDVYYGYTVAMVSRLWAHLPIYNDLIMAWHSSGFDKIWEWRITADFLNINEQNQVIASRYYNFDTGPVELGMSNFGGMILLLVIGMGASMLVFAGELLVYKMIQRKLKLKEQEVEEGAQEIF

>CstyIR41a

MLSTTVYWSQVISAIAQLYLKDTTICLIWNSELEVDLKTVNYLDYYAVININLNNLQSCFEKDIDDFNALEKKLTEKGLSYNELTEKLTMAIEKTHCESFITFQHDILNFIESFINASQYSDWRSKRNRFVFGYIEDNFEENFQQLTFFEEQDSILLVSMDSTSSSDIFILKTNKYYGPKAEQQNSLVFLDKFYAENATFLYNHSLFPDKTANLRGREVIIAGFDYRPYFVINYGEKDNNSYDLAFGGSTLGAVQIDGTEARVVSTFCEIYNCTVWIDSSEANDWGEVYPNLTGDGSLGMVVKDMAEISIGAMYSWDVDYLQLDMSMYLVRSGITCLVPAPRRLTSWLLPLQPFQFTLWLAVMGYLLVEIISLCFAHKFESNLSTKRVSWHYSFKYAYATTLKLFVSQSGNSYVSSLTVRVLLFTCFMNDIILTSIYGGGLASILTIPSYEKAADTVDGMLYHKLQWAANSEAWVSAIRSTDDDRMNGILYNFFIYNDDELEVLATTRSDMGFTVERLPFGHFAIGDYLSSQTIEHLKIMKEDLYFQYTVAFVKRCWPLLDRFDHLIYWWHSAGLDKYWEWRIVAVNLNVQKQKQVEATMYSTMEDNGPVKLGMSNFAGILLIWVLGISVAMMAFVYEITEQYFKCKKSNV

>CstyIR40a

MLKITNIIFICELIHQATVKAMVILEPEKNISDVSIGLSQIVKSLHPNQLAILVKPSETFNQSWDDYQLLDEDNQNLQLHIDEFLQNLHTLNFKSVIFYDTELFFKFIEASLHGSIESVNLIFYKPYDLMQRIHDRKLAHRLSLFIFYWGAKYPPKRAELNFREPLRAVVITRPRKRAFRIYYNQAYADGLGRLKLVSWYDGDNLGLSKEPLLPSAKSVYSNFQGRVFRVPVFHSPPWFWVNYDNDSYNNNSLEFTISEENPLTEDTIEFKEVNVSGGRDHRLLQLLAQHMNFEFVYIEAHGRTQGSLRTDNEANDTFTGGIGMLQIGLADFFLGDVGLSWERRKAIEFSFFTLADSGAFATHAPRRLNEALAILRPFKADVWPYLILTVIVSGPVFYFVISTPYRWHPSTVKRLSKKISKHGAFHMCYIKEITRMDTQFQRRLAKMEQHFRMRQEMVELPPNLFNRCIWFTVQLFLKQSCQELYNGYRAKFLMTVYWIAATYVLADVYSAQLTSQFARPARERPINTLHRLQSVMIHDGYLLYVEKESSSLEMLENGTEIFRQLYALMKLQSPDEEGFLIDSVEAGIQLIADGLENKAVLGGRETLFFNIQQYGSKSFQLSHKLYTRYSAVAVQIGCPFLDSLNDVLIHLFEGGILDKMTTAEYETQSRMIGKDLNKKTKKTFKEDPSELATKPEEPSTSNEASGKSADNAEMKKPQDTQIIQPLNLRMLQGAFIVLIVGYTMAGLMLLLELFCHGMNLNIIRVCKTNLHKKLKFLKRKLRKSLRWLAVRFK