

MASCOT Search Results

Protein View: A0A4W2BU20

Transthyretin OS=Bos indicus x Bos taurus OX=30522 GN=TTR PE=3 SV=1

Database: Uniprot_bovine
Score: 88
Expect: 0.00024
Nominal mass (M_r): 15831
Calculated pI: 5.91

Sequence similarity is available as [an NCBI BLAST search of A0A4W2BU20 against nr.](#)

Search parameters

Enzyme: Trypsin: cuts C-term side of KR unless next residue is P.
Fixed modifications: [Carbamidomethyl \(C\)](#)
Variable modifications: [Oxidation \(M\)](#)

Protein sequence coverage: 40%

Matched peptides shown in **bold red**.

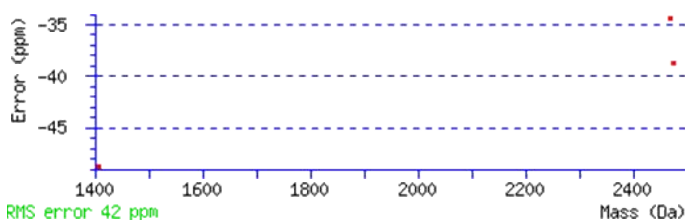
1 MASFRLFLLC LAGLVFVSEA GSVGAGEPKC PLMVKVLDVAV RGSPAANVGV
51 KVFKK**AADET WEPFASGK**TS ESGELHGLTT EDKFVEGLYK VELDTKSYWK
101 **SLGISPFHEF AEVVFTANDS GPRHYTIAAL LSPYSYSTTA LVSSPKA**

Unformatted sequence string: [147 residues](#) (for pasting into other applications).

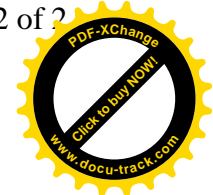
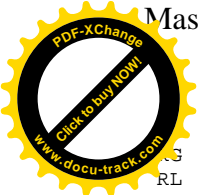
Sort peptides by ☒ Residue Number ☐ Increasing Mass ☐ Decreasing Mass

Show predicted peptides also

Query	Start - End	Observed	Mr(expt)	Mr(calc)	ppm	M	Score	Peptide
41	56 - 68	1408.5692	1407.5619	1407.6306	-48.8	0		K.AADETWEFFASGK.T
42	56 - 68	1408.5692	1407.5619	1407.6306	-48.8	0		K.AADETWEFFASGK.T
72	101 - 123	2477.1138	2476.1065	2476.2023	-38.7	0	66	K.SLGISPFHEFAEVVFTANDSGPR.H
73	101 - 123	2477.1138	2476.1065	2476.2023	-38.7	0		K.SLGISPFHEFAEVVFTANDSGPR.H
71	124 - 146	2470.2014	2469.1941	2469.2791	-34.4	0		R.HYTIAALLSPYSYSTTALVSSPK.A



ID A0A4W2BU20_BOBOX Unreviewed; 147 AA.
AC A0A4W2BU20;
DT 18-SEP-2019, integrated into UniProtKB/TrEMBL.
DT 18-SEP-2019, sequence version 1.
DT 26-FEB-2020, entry version 5.
DE RecName: Full=Transthyretin {ECO:0000256|RuleBase:RU361269};
GN Name=TTR {ECO:0000313|Ensembl:ENSBIXP00000002455};
OS Bos indicus x Bos taurus (Hybrid cattle).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia;
OC Eutheria; Laurasiatheria; Artiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovinae; Bos.
OX NCBI_TaxID=30522 {ECO:0000313|Ensembl:ENSBIXP00000002455, ECO:0000313|Proteomes:UP000314981};
RN [1] {ECO:0000313|Ensembl:ENSBIXP00000002455, ECO:0000313|Proteomes:UP000314981}
RP NUCLEOTIDE SEQUENCE [LARGE SCALE GENOMIC DNA].
RA Low W.Y., Tearle R., Bickhart D.M., Rosen B.D., Koren S., Rhie A.,
RA Hiendleder S., Phillippy A.M., Smith T.P.L., Williams J.L.;
RT "Haplotype-resolved cattle genomes."
RL Submitted (NOV-2018) to the EMBL/GenBank/DDBJ databases.
RN [2] {ECO:0000313|Ensembl:ENSBIXP00000002455}
RP IDENTIFICATION.



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G      Ensembl;
RL      Submitted (JUL-2019) to UniProtKB.
CC      -!- FUNCTION: Thyroid hormone-binding protein. Probably transports
CC          thyroxine from the bloodstream to the brain.
CC          {ECO:0000256|RuleBase:RU361269}.
CC      -!- SUBUNIT: Homotetramer. {ECO:0000256|RuleBase:RU361269}.
CC      -!- SUBCELLULAR LOCATION: Secreted {ECO:0000256|RuleBase:RU361269}.
CC      -!- SIMILARITY: Belongs to the transthyretin family.
CC          {ECO:0000256|RuleBase:RU361269}.
CC      -----
CC      Copyrighted by the UniProt Consortium, see https://www.uniprot.org/terms
CC      Distributed under the Creative Commons Attribution (CC BY 4.0) License
CC      -----
DR      Ensembl; ENSBIXT00000011885; ENSBIXP00000002455; ENSBIXG00000008920.
DR      Ensembl; ENSBIXT000005046533; ENSBIXP000005035955; ENSBIXG000005017301.
DR      Proteomes; UP000314981; Chromosome 24.
DR      GO; GO:0005576; C:extracellular region; IEA:UniProtKB-SubCell.
DR      GO; GO:0042802; F:identical protein binding; IEA:Ensembl.
DR      GO; GO:0070324; F:thyroid hormone binding; IEA:InterPro.
DR      GO; GO:0042572; P:retinol metabolic process; IEA:InterPro.
DR      GO; GO:0070327; P:thyroid hormone transport; IEA:InterPro.
DR      Gene3D; 2.60.40.180; -; 1.
DR      InterPro; IPR023418; Thyroxine_BS.
DR      InterPro; IPR030178; Transthyretin.
DR      InterPro; IPR000895; Transthyretin/HIU_hydrolase.
DR      InterPro; IPR023416; Transthyretin/HIU_hydrolase_d.
DR      InterPro; IPR036817; Transthyretin/HIU_hydrolase_sf.
DR      InterPro; IPR023419; Transthyretin_CS.
DR      PANTHER; PTHR10395; PTHR10395; 1.
DR      PANTHER; PTHR10395:SF12; PTHR10395:SF12; 1.
DR      Pfam; PF00576; Transthyretin; 1.
DR      PRINTS; PR00189; TRNSTHYRETIN.
DR      SMART; SM00095; TR_THY; 1.
DR      SUPFAM; SSF49472; SSF49472; 1.
DR      PROSITE; PS00768; TRANSTHYRETIN_1; 1.
DR      PROSITE; PS00769; TRANSTHYRETIN_2; 1.
PE      3: Inferred from homology;
KW      Hormone {ECO:0000256|RuleBase:RU361269};
KW      Reference proteome {ECO:0000313|Proteomes:UP000314981};
KW      Secreted {ECO:0000256|RuleBase:RU361269};
KW      Signal {ECO:0000256|RuleBase:RU361269};
KW      Thyroid hormone {ECO:0000256|RuleBase:RU361269}.
FT      SIGNAL          1..20
FT                      /evidence="ECO:0000256|RuleBase:RU361269"
FT      CHAIN           21..147
FT                      /note="Transthyretin"
FT                      /evidence="ECO:0000256|RuleBase:RU361269"
FT                      /id="PRO_5023949286"
FT      DOMAIN          27..147
FT                      /note="TR_THY"
FT                      /evidence="ECO:0000259|SMART:SM00095"
SQ      SEQUENCE      147 AA;  15727 MW;  54C8CA7EC04478B7 CRC64;
      MASFRLFLLC LAGLVFVSEA GSVGAGEPKC PLMVKVLDVAV RGSPAANVGV KVFKKAADET
      WEPFASGKTS ESGELHGLTT EDKFEVGLYK VELDTKSYWK SLGISPFHEF AEVVFTANDS
      GPRHYTIAAL LSPYSYSTTA LVSSPKA
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Mascot: <http://www.matrixscience.com/>