

ApisOBP1	MLNLKVMF LCLSVIVVYCESDQVPINSSAAVESCLLETNMTRDEFEDMLTSPNARELTI	60
MvicOBP1	MLNLKVMF LCLSVIVVYCESDQVPMNSSAAVENCLEETNMTRDEFEDMLTSPNARELTI	60
	*****.*****.*****	
ApisOBP1	LKSHAHKCMFGCVMRKNHIVNDGVVSKEVL SKYVLN FYGRP DYKRRLIIKDVEHIVDVCA	120
MvicOBP1	LKSHAHKCMFGCVMRKNHIVNDGVVSKEVL SKYVLN FYGRP DYKRRLIIKDVEHIVDVCA	120

ApisOBP1	KKVADESETDECELAATLVTCIVLEANKAGLVDDPARQI	159
MvicOBP1	KKVADESETDECELAATLVTCIVLEANKAGLVDDPARQI	159

ApisOBP2	MKVSAATAVLVALVATVQSSDPCNISTCYKSGTTKPPMAVTPTHLPVQSSSTQTSHPQTT	60
MvicOBP2	MKVSAATAVLVALVATVQSSDPCNISTCYKSGTTKPPMSVTPTRLFPVQSSSTPTSHPQTT	60
	*****:****:*****	
ApisOBP2	YAKDHVHGSTTTKSGVNATVTTASGASVNGTEPPAVVKSSAGVTGNSTTPKPTMTTEGHVA	120
MvicOBP2	YAKDHSHGSTTTKSGANATATTASGASVNGTERPAVVKSSAGVTGNLTTPKPTMTTEGHVA	120
	*****.***.*****	
ApisOBP2	LKQKLNTIAVKCKDELHAPQEIMALVSNTVVPQNEQQRCYLECVYKNLNLIKNNKFSVED	180
MvicOBP2	LKQKLNTIAVKCKDELHAPQEIMALVSNTVVPQNEQQRCYLECVYKNLNLIKNNKFSVED	180

ApisOBP2	GKAMARIRFANQPEEHKKAVTIIETCEKEAVIDPKTTEKCAAGRVI RNC FVKNGE KINFF	240
MvicOBP2	GKAMAKIRFANQPDEHKKAVTIIETCEKEAVIDPKTTEKCAAGRVI RNC FVKNGE KKNKFL	240
	*****:*****:*****	
ApisOBP2	PKA	243
MvicOBP2	P--	241

ApisOBP3	MISSTFYITLVFGIAMLISCGHGRFTTEQIDYYGKACNASEDDLVVVKSYPVPTTETGKC	60
MvicOBP3	MISSTFYFTLLFGIAMLISCGYGRFTTEQIDYYGKACNASEDDLVVVKSYPVPSSETGKC	60
	*****.:*:*****:*****:*****:*****	
ApisOBP3	LMKCMITKLGLLNDDGSYNKTGMEAGLKKYWSEWSTEKIESINNKCYYEALLVSKEVVAT	120
MvicOBP3	LMKCMITKLGLLNDDGSYNKTGMEAGLKKYWSEWSTEKIESINNKCYYEALLVSKEVIAT	120
	*****:*****	
ApisOBP3	CNYSYTVMACLNKQLDLDKST	141
MvicOBP3	CNYSYTVMACLNKQLDLDKST	141

ApisOBP4	MRGNYSSMVFLFLFAIGFQDIFCQKQEPSGKCRAPDKAPLNLEIIINTCQEEIKSALLQEA	60
MvicOBP4	MRGNYSLMVFLLLAIGSQDIYCQKQELSRKCKAPDKAPLNLEIIINTCQEEIKSALLQEA	60
	***** :*** :*** :***** * **:***** *****	
ApisOBP4	LDILNDGNVEQNTPNYSSRSKREAEEDLTNEERRVAGCLLQCVYKKVKAVDETGFPPVDG	120
MvicOBP4	LDILNEGNLEQNTPSYSSRSKREAEEDLTNEERRVAGCLLQCVYKKVKAVDETGFPPVDG	120
	*****:***:*****.*****:*****	
ApisOBP4	LMKLYNEGVQDRNYIATLSAVRHCISIAQQLKQQQPSKSFDDGQTCDLAYEMFECVSEK	180
MvicOBP4	LMKLYNEGVQDRNYMATLSAVRHCISIAQQLKQQQPSKSFDDGQTCDLAYEMFECVSEK	180
	*****.*****	
ApisOBP4	IEENCGVENKSNN----- 193	
MvicOBP4	IEENCGVENKSNNLSQRQV 199	

Identity 95%

ApisOBP5	MSANSATIKCIAVAAILLQISVIFADAGHHRGKELLDTEDSDFFRCKQASRKSCCGPEN	60
MvicOBP5	MSVNSLTIKCIAAAVLLQISVIFADAGHHRGKELLDTEDSDFFRCKQASRKSCCGPEN **. ** *****. *. :*****	60
ApisOBP5	AMKRFGDKDKVAADECYAQVAEKFATVTATTPKQDLFSAEAVKITKKKQFCLHECIGKKN	120
MvicOBP5	AMKRFGDKDKVAADECYAQVAEKFATVTATTPKQDLFSADAVKITKKKQFCLHECIGKKN *****.*****	120
ApisOBP5	NLLTEDGSLNKTFIADYAMKSVFKEQWQKQVQKALDKCLEETYIPWPAEDKENVCNPVY	180
MvicOBP5	HLLTEDGSLNKTFIADYAMKSVFKEQWQKPVGLKALEKCLEETYIPWPAEDKENVCNPVY :***** ** ***:*****	180
ApisOBP5	VQFQHCLWLQYESNCPANKIKITKKCEKTRNRYRMQKSTSN	221
MvicOBP5	VQFQHCLWLQYESNCPANKIKITKKCEKTRNRYRMQKLTSN ***** **	221

Identity 95%

ApisOBP6	MQKVVFICIFAIIICQTVFTAGYDRTWILRQKRGTDNDECRLLPSSEKKLPSCCQMPNII	60
MvicOBP6	MQKVVFICIFAIIICQTVFTAGYDRTWILRQKRMNDDECRLLIPGPEKKLPSCCQMPNII *****.*****	60
ApisOBP6	PNLDSTWEKCFETFKQFKDKPETKEYKEMAHGKEPPCLFQCIFMQSGLTTSKGKLNEDAI	120
MvicOBP6	PNMDSTWEKCFETFKQFKDKPETKQYKEMAHGKEPPCLFQCIFMQSGLTTSKGKLNKDAI *:*****:*****:***	120
ApisOBP6	TKKMSEGINNDEKWKSIWQNSLNKCFDDVKQEDKKQILIMNTPAGRLMKCFLRDMYMSCP	180
MvicOBP6	TKKMSEGINNDEKWKSTWQNSLNKCFDDVKQEDKKQIPIMNTPAGRLMKCFLRDMYMSCP *****	180
ApisOBP6	KNVWVESSECLNMKDLVQKCPMPPPVFKSPPKLI	215
MvicOBP6	KNVWVESSECLNVKDLVQKCPMPPPVFKSPPQLI *****:*****:***	215

Identity 88%

ApisOBP7	MVARCRMYNMLPTTVLFAIIAATVLKDCDAYLSEAAIKKTQQMLKTVCSKKHSVEEDVFT	60
MvicOBP7	MVAQCRMYNMLPTTVLFAVIAATVLKDCDAYLSETAIKKTQQMLKSVCSKKHSVNEDVFL ***:*****:*****:*****:*****:***	60
ApisOBP7	NIKKGIFPEDNNNIKCYFACNFKTMQLINQKGVIDKKMFKDKMSMMAPPNVYKILLPVIE	120
MvicOBP7	DIKKGIFPEDNNNIKCYFACNFKTMQLINQKGSIDKKMFRDKMSMMAPPNVFNILSPVIE :***** *****.*****:*** **	120
ApisOBP7	QCTGKDKGEELCQSSYNVIKCAHSVDPKSLEFLPL	155
MvicOBP7	QCTGIDGKELCQSSYNVIKCAHRVNPKSLEYLPL **** *. *:*****:***	155

Identity 95%

ApisOBP8	MFALKVACLCLSVAVVFGENNQNGPSDRSATIFQSCIAETKLSGDALKGFRSMSIPKTQ	60
MvicOBP8	MFALKVAYLCLSVAVVFGENNQONS-NDRSATIFQSCISETKLSGDALKGFRSMSIPKTQ ***** *****.*****:*****	59
ApisOBP8	AEKCMGCLMRKVVNINKGKFSVEEATKVAQKYGTNEAMMKAKDLIDVCAKKAQSTTE	120
MvicOBP8	AEKCMGCLMRKVVNINKGKFSVEEATKVAQKYGTNETMMKKAKDLIDVCAKKAQSTTE *****:*****	119
ApisOBP8	ECALAGIVTTCIVEEAQKAGLSGGPGSRSRRTVSPKFRRDAM	162
MvicOBP8	ECALAGIVTTCIVEEAQKAGLSGGPGSRSRRTVSPKFRRNVM *****:.*	161

Identity 90%

ApisOBP9	MIKKTLTLLSVFVLFGLFSINKA-DDADAKDKELMSKLFVTVFKCFKDADWGTCGEMIT	59
MvicOBP9	MIKKTLTLLSVFIIIFGLFSINKAADDADAADKELISKLFVTVFKCFKDADWGTCGEMIT	60
	*****:***:***** ***** *****:*****:*****:*****	
ApisOBP9	TKYDITQAKYKQCTCHMACAGEELGMINASGQPEPAKFLEYVVKINNPDIKSQQLQLIYDK	119
MvicOBP9	TKYDITQAKYKQCTCHMACAGEELGMINSSGQPEPAKFLEYVVKRINNPDIKSQQLQLVYDK	120
	*****:*****:*****:***	
ApisOBP9	CQNVKGSEKCDLAEQFAICAFKESPALKERVSTLMEMLVKMKPKSK	165
MvicOBP9	CQNVKGSEKCDLAEQFAICAFKESPALKERVATLMELLVKMKPKSK	166
	*****:*****:*****	

Identity 81%

ApisOBP10	MEHLRSTNVVFAIVMALLVVQ-SSTRPQPDEMEEIKRTLYNACAGKFPITEEIKNNAKNS	59
MvicOBP10	MEHLRKTNVVFGVVIVLLVIQKSSTRPQPDELEEIKRTLYNACAGKFPITEEVKNNAKNS	60
	*****.*****.:*:*:*:* *****:*****:*****:*****	
ApisOBP10	IISDDPTFKCFLKCCFDEMSMIDEDGIIDGDSLKAMAPDHIKPILEQVIPSCTKNVKQDG	119
MvicOBP10	IFLDDQNFKCFLKCCLEMSLIDDDDGIIDGDSLKAMASDKIKPILEQVVPNCLKDVKQDG	120
	: *.*****:*****:*****:***** *****:*****:*. * *:*****	
ApisOBP10	CEASFEEFISCGIKLNPLIVALLPL	143
MvicOBP10	CEAAFDFLSCGIKLNPLTVELLPL	144
	:*.*:** * ****	