

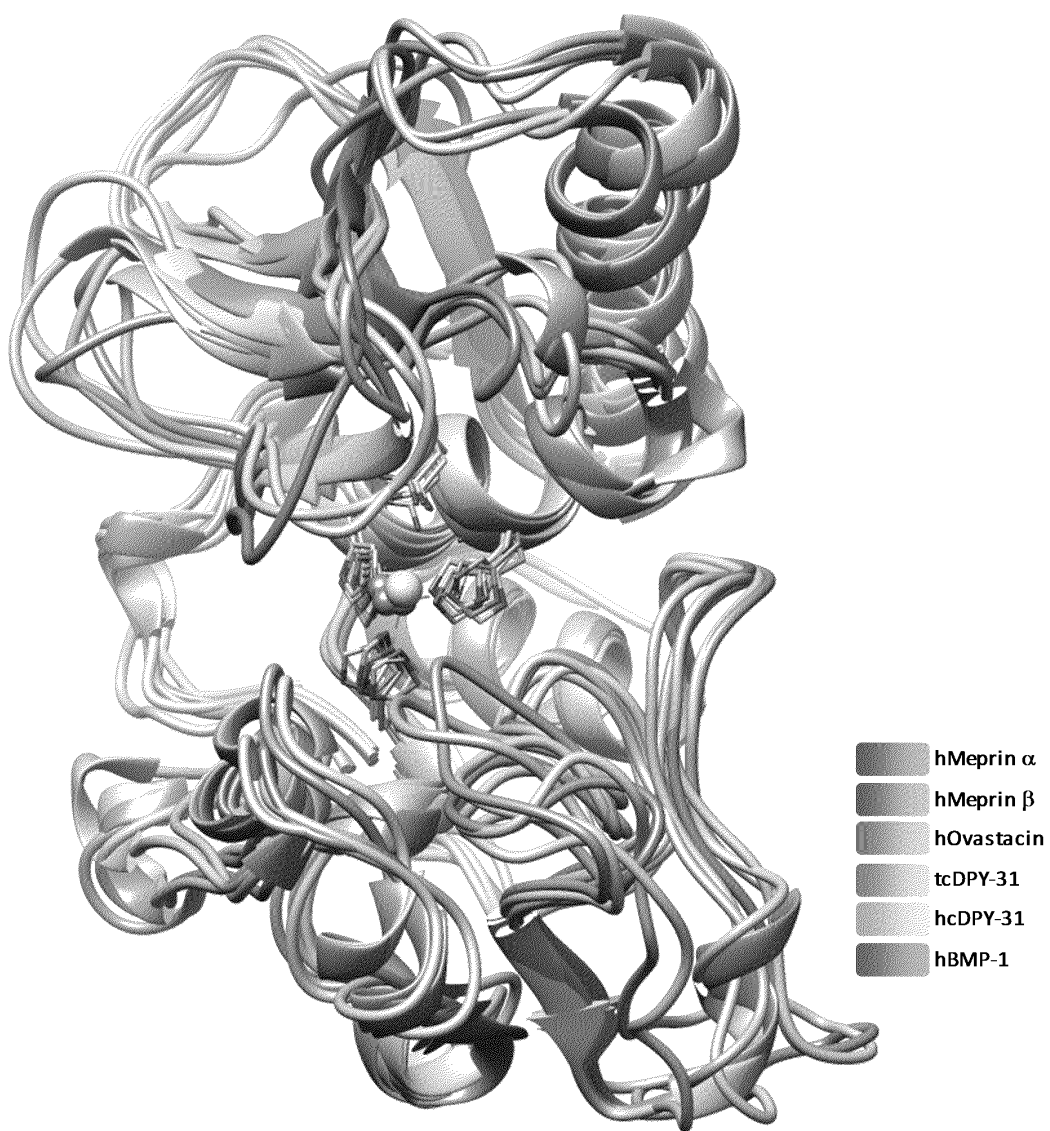


FIG. 1

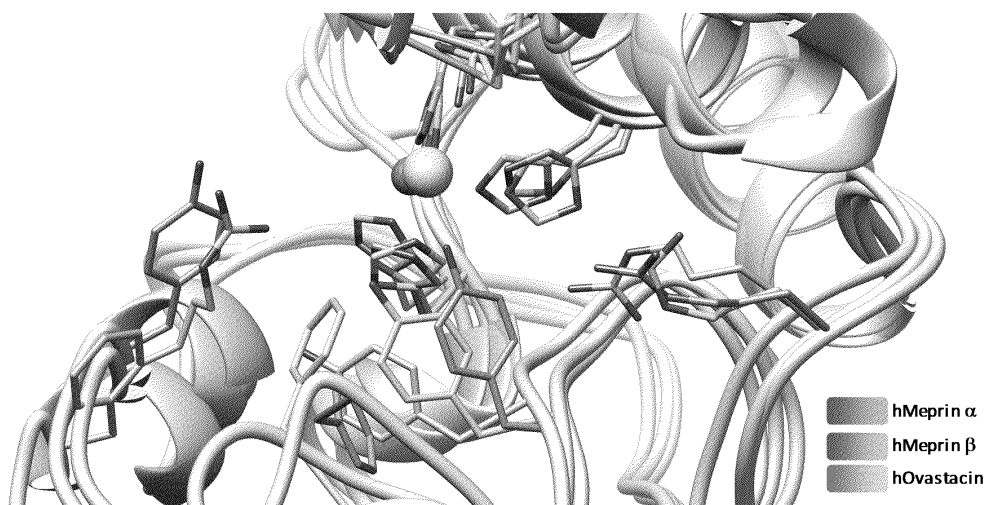


FIG. 2

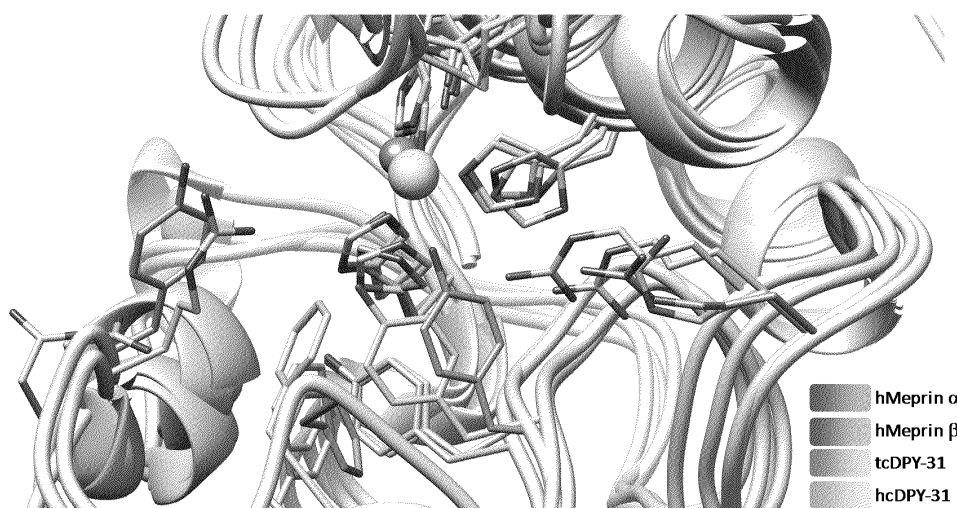


FIG. 3

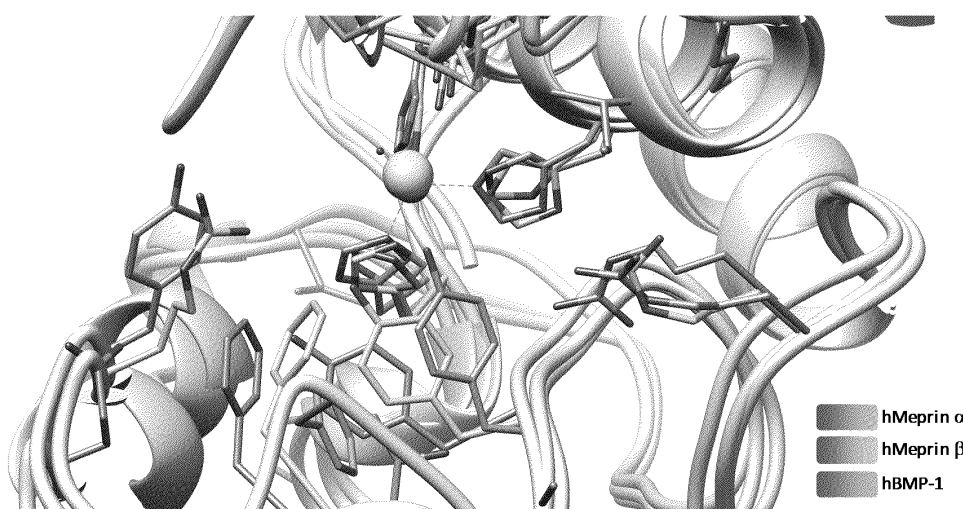


FIG. 4

hMeprin_beta	-----MDLWNLSW-FLFLDAL-----LVISGL	21
hMeprin_alpha	-----MAWIRSTCILFFTLFFAHIAA-----VPIKYL	27
hOvastacin	-----MEGVGGLWPVWLGLLSLPGVILGAPLAS-----SCAGACGTSFP	39
DPY-31_C.elegans	-----MHKIFIIFGLL-----SLCAAHSLRDLNKNDEE-DPPSSAP--GVRKRRMM	43
DPY-31_T.circumcincta	MSLLRCTTLLLVVAIALPPCILGYSLHDGSRLLDDFLTESAADRRPRRPTAAQRRLMGL	60
DPY-31_H.contortus	MSLLRSASLLLVVVTAALPPCTLGYSLHDGSRLLDDVIAEFTAERRPRRLATPAQRRLMGL	60
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hMeprin_beta	A-----TPENFDVDGGM-----DQDIFDINEGLGLD-----	47
hMeprin_alpha	P-----EENVHDADFG-----QKDISEINLAAGLD-----	53
hOvastacin	D-----GLTPEGTQASG-----DKDIPAINQGLILEETPESSF	72
DPY-31_C.elegans	SEEDQKTVDYMDKLNKLADKHPKEIERHKNP-ELVAWDR-----KRDSVL-NPEEQGK	96
DPY-31_T.circumcincta	TEEQYKTVHFYLNKLKELGNQRHPEGYDKDTTKDEADKWRKMRDDIEGELL-NPEEYGR	119
DPY-31_H.contortus	TEEQHKTVQFYLDKLRGLNRRHPESYNKDSPKNEAYKWRKQMRDDLKTELL-NPEKYGR	119
: : *		
hMeprin_beta	LFEGDIRLDRAQIR-----NSIIGEKYRWP-----TIPYVLEDSLEM	85
hMeprin_alpha	LFQGDILLQKS--R-----NGLRDPNTRWTF-----PIPYILADNLGL	89
hOvastacin	LIEGDIIRPSP--F-----RLSATSNNKWPMSGSGVVEVPFLLSSKYDE	114
DPY-31_C.elegans	FFQGDIVLYPEQAKALYEQALTEGKTRVKRKFIGSNLRRWDA----SRPIIYAFDGSHTQ	152
DPY-31_T.circumcincta	HFEGDIILFPEQAKQIYENALKTGQRRVKRKFIGSDLRRWDP----TRPIVYSFDGSHTS	175
DPY-31_H.contortus	HFEGDIILFPEQAKQIYENALKTGQRRVKRKFIGSDLRRWDP----TRPIIYSFDGSHTS	175
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hMeprin_beta	NAKGIVILNAFERYRLKTCIDFKPWA--GETNYISVFKGSGCWSSVGNRRVGK-QELSIGA	142
hMeprin_alpha	NAKGAILYAFEMFRLKSCVDFKPYE--GESSYIIFQQFDGCWSEVGDQHVQG--NISIGQ	145
hOvastacin	PSRQVILEALAEFERSTCIRFVTYQ--DQRDFISIPMYGCFSSVGRSG--GM-QVVS LAP	170
DPY-31_C.elegans	REQRIIELEALEHWHNITCLNFQRNDQANSNRIVFTDVGDCASNVRHPLGEEQLVSLAP	212
DPY-31_T.circumcincta	REQRIIELEALEHWHNITCLNFVRNDNANSNRIVFTDVGDCASNVRHPLGEEQLVSLAP	235
DPY-31_H.contortus	REQRIIELEALEHWHNITCLNFVRNDNANKGNRIVFTDVGDCASNVRHPLGEEQLVSLAP	235
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hMeprin_beta	S₂ Zn²⁺-binding S₁ NCDR--IATVQHEFLHALGFWHEQSRSDRDDYVRIMWDRILSGREHNFNNTYSDDISDSL	200
hMeprin_alpha	GCAY--KAIEHEILHALGFWHEQSRSDRDDYVNIWWDQILSGYQHNFDTYDDSLITDLN	203
hOvastacin	TCLQKGRGIVLHELMHVLGFWHEHTRADRDRYIRVNWNEILPGFEINFIKS--QSSNML	227
DPY-31_C.elegans	ECIR--LGVIAGEVAHALGFWHEQSRPDRDQYVTVRWENIDKDSKGQFLKEDPDDVDNAG	270
DPY-31_T.circumcincta	ECIR--LGVIAGEVAHALGFWHEQSRPDRDQYVTVRWENIDKDSKGQFLKEDPDDVDNAG	293
DPY-31_H.contortus	ECIR--LGVIAGEVAHALGFWHEQSRPDRDQYVTVRWENIDKDSKGQFLKEDPDDVDNAG	293
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hMeprin_beta	Met-Turn S₁ VPYDYTSVMHYSKTAFQN-GTEPTIVTRISDFEDVIGQRMDFSDSLLKLNQLYNCS---	256
hMeprin_alpha	TPYDYE SL MHYQPF SF NKNASVPTITAKIPEFNSIIGQRLD FS AI D LERLNRMYNCT---	260
hOvastacin	TPYDYS SV MHYGR LA FSRRG-LPTITPL-WAPSVHIGQRMNLSASDITRVLKLYGCS---	282
DPY-31_C.elegans	VPYDYG SI MHYRSKAF S KFD LY TISTYVTDYQKTIGQRD QL SFNDIRLMNKIYCSAVCP	330
DPY-31_T.circumcincta	VPYDYG SI MHYRSKAF S RYDD LY TISTFVTDYQKTIGQRD QL SFNDIRLMNKIYCSNVCS	353
DPY-31_H.contortus	VPYDYG SI MHYRSKAF S RYDD LY TISTFVTDYQKTIGQRD QL SFNDIRLMNKIYCSNVCS	353
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hMeprin_beta	SSLSFMDSCSFELENVCGMIQSSGDNADWQRV---SQVPRGPESDHS-NMQQCQ--GSG	309
hMeprin_alpha	TTHTLLDHCTFEKANICGMIQGTTRDDTDWAHQ---DSAQ-AGEVDHT-LLGQCT--GAG	312
hOvastacin	PSGPRPRGRGSHAH-STGRSPAP-ASLSLQRLLEALSASRSRDPSSGSSAGGQVPVAPPG	340
DPY-31_C.elegans	SKLPCQRG-GYTDPRRCRCRCP-----DGF-TGQYCEQVMPG	366
DPY-31_T.circumcincta	RKLPCQRG-GYTDPRRCRCRCP-----DGF-TGQFCEQVMPG	389
DPY-31_H.contortus	RKLPCQRG-GYTDPRRCRCRCP-----DGF-TGQFCEQVMPG	389
. . *		
hMeprin_beta	FFMHFDS---SSVNVGATAVLESRTLYPKRGFQCLQFYL---YNSGSE-SDQLNIYIREY	362
hMeprin_alpha	YFMQFST---SSGSAEEAALLESRIYLPKRKQCLQFFY---KMTGSP-SDRLVVVVRD	365
hOvastacin	ESPH-----GWESPALKKLSAEASARQPQTLASSPRSRPGAGAPGVAQECSWLAGV	391
DPY-31_C.elegans	YGATCGGKISLSTRST---RISSPGYPREF-----KEGQECSWLLVA	405
DPY-31_T.circumcincta	YGAVCGGRIQVNGGWT---KFSSPGYPREF-----KEGQECSWLLVA	428
DPY-31_H.contortus	YGAVCGGRIQVNSGWT---RFSSPGYPREF-----KEGQECSWLLVA	428
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FIG. 5

hMeprin_beta	SADNV DGNLT LVEEIK-----E IPTGSWQLYHVTL	392
hMeprin_alpha	DSTGNVRKLVKVQTFQ-----GDD DHNWKIAHVVL	395
hOvastacin	STKP-----TVP SSEAGIQPV--	407
DPY-31_C.elegans	PPGHIV-EFQF IG EF EMYCKIRHSLCMDYVEVRNSTDFANTGMRYCCYGTPPTRIRSATT	464
DPY-31_T.circumcincta	PHGQVV-EMQF IG EF EMYCKVRHSLCMDYVEVRNSTDFANTGMRYCCYGTPSTSIRSATT	487
DPY-31_H.contortus	PPGQVV-EMQF IG EF EMYCKVRHSLCMDYVEVRNSTDFANTGMRYCCYGTPSTSIRSATT	487
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hMeprin_beta	KVTKKFRVVFEGRKG-----SG-ASL	412
hMeprin_alpha	KEEQKFRYLFQGTKG-----DPQNST	416
hOvastacin	-----PVQGS PALPGG-----CVPRNHF	425
DPY-31_C.elegans	DMVVLFRSFYRGGKGFEARARAVPEAGNWSWSPWTACSATCGACGSRMRTRTCTPPGNAC	524
DPY-31_T.circumcincta	DLVVLFRSFYRGGRGFEARARALPANGQWASWSPWTPCTASCGACGSRMRTRVC SHG-AC	546
DPY-31_H.contortus	DLVVLFRSFYRGGRGFEARARALPANGQWASWTPWTPCTASCGACGSRMRTRVC PHG-AC	546
	. *	.
hMeprin_beta	GGLSIDDINLSETRCPHHIWHIRNFTQFIGS--PNGTLYSPPFYSSKGYAFQIYLNLAHV	470
hMeprin_alpha	GGIYLD DITLTETPCPTGVTVRNF SQVLENTSKGDKLQSPRFYNSEGYGFGVTLYPN SR	476
hOvastacin	KGMSD-----	431
DPY-31_C.elegans	SGEPVETQICNTQACTGMC-----AQKR	547
DPY-31_T.circumcincta	AGEPVENQVCNTHPCNGLC-----AHKK	569
DPY-31_H.contortus	PC-----	548
hMeprin_beta	TN---AGIYFHLISGA---NDDQLQWPCPWQATMTLLDQNPDIRQMSNQRSITTDPFM	524
hMeprin_alpha	ESSGYLR LAFHVC SGE---NDAILEWPVENRQVIIITILDQEPDVNRMS SSMVFTTSKSH	533
hOvastacin	-----	
DPY-31_C.elegans	EEEGQCGGFLSLLRGVRCRQEKTVMAPCENACCPGFTL-----	585
DPY-31_T.circumcincta	TEDGECCGFLALLRGVRCRQERTVMEPCENACCPGFSV-----	607
DPY-31_H.contortus	-----	
hMeprin_beta	--TTDNGNYFWDRPSKVGTVALFSNGTQFRGGGYGTSAFITHERLKSRDFIKGDDVYIL	582
hMeprin_alpha	TSPAINDTVIWDRPSRVGYHTD---CNCFRSIDLGWSGFISHQMLKRRSFLKND DLIIF	590
hOvastacin	-----	
DPY-31_C.elegans	-----	
DPY-31_T.circumcincta	-----	
DPY-31_H.contortus	-----	
hMeprin_beta	LTVEDISHLNSTQIQITP-----	600
hMeprin_alpha	VDFEDITHLSQTEVPTKGKRLSPQGLILQGQEQVSEEGSGKAMLEEALPVSLSQGQPSR	650
hOvastacin	-----	
DPY-31_C.elegans	-----	
DPY-31_T.circumcincta	-----	
DPY-31_H.contortus	-----	
hMeprin_beta	-----APSVQDLCSKTTCKNDGVCTVRDGKAECRCQSGEDWWYMG ERCE	644
hMeprin_alpha	QKRSVENTGPLEDHNPQYFRDPCDPNCPQNDGICVNVKGMASCRCISGHAFYTG ER CQ	710
hOvastacin	-----	
DPY-31_C.elegans	-----QRGRVC	591
DPY-31_T.circumcincta	-----VGGRCV	613
DPY-31_H.contortus	-----	
hMeprin_beta	KRGSTRDTIVIAVSSTVAVFALMLIITLVSVYCTRKKYRERMSSNRPNLT PQNHAF	701
hMeprin_alpha	AVQVHG SVLGMVIGGTAGVIFLTFSI--IAILSQRPRK-----	746
hOvastacin	-----	
DPY-31_C.elegans	R-----	592
DPY-31_T.circumcincta	R-----	614
DPY-31_H.contortus	-----	

FIG. 5 (continued)