

A2M *O. moubata* 1 MARNP-AIICLLIISCLVASSH--LAQSGYIFLTPAKVLR-----HRPAVFRLLTIDVGVQDQVSVLRVLYN  
A2M *Limulus* sp. 1 MEEIKWQKMTLFLFLFLFTHDYVSKSGVIFLTPK-----GKSNILNLHLDFIKTNGFLRIGVLDKND  
SIPC *B. amphitrite* 1 MGG-P---VVVLLVLAATASAVKVPESGYLFTAPKVLQAGTDERACLSLFNLPGPNRALKLKFYERDVPSSLSTTLDKSD

A2M *O. moubata* 64 NESLVLVAHOVYDIKQGELEQTLNFDVPEYSGSS-AKIEVSGTFG---EYMFSGKKEIDFQKSKDHILIQTDKALYKPGQK  
A2M *Limulus* sp. 67 DGNVVVAETEVSFNKDNP-SSSIQLTIPSGVEVKRPKLYANGSYSSPSSNDFFEKDLNMHKDKLIVFVQTDKPLKPGQT  
SIPC *B. amphitrite* 77 FLLFETNTAMPDPSVAENGEYCFDITIPSKVVARSA DMHMETAG---EGVWKEESVVTLKSETFLTLVQTDKSKYQPGQK

A2M *O. moubata* 140 VQLRVLPTTSDLLKPV-DAVAEYQVNSPSEARIAQKKNVTFARGIQAQDFDLTDEEPLGLWQLTGVNIEPDRQHFEVNE  
A2M *Limulus* sp. 146 VWRVILPVTSDLLKPVKTEIGSFYIENPDGTVLGVWPLMSFABGIAQDFDLTDEEPLGLWQLTGVNIEPDRQHFEVNE  
SIPC *B. amphitrite* 154 VLFRRVVTLSHDLTALN-NDLNVEVWITTPDNIRVAQKKNVKTNTGMVQLELQLTEEPLGSGWTHVLTQTQDYTKRFVVE

A2M *O. moubata* 219 VYLPKFEVTVTPPSYLLANAKEIVWKICATYTFGQPVVEGTELLANVTYKHYH--WETESFPYVEHEG-----PINGCFDF  
A2M *Limulus* sp. 226 VYLPKFEVKITPPSYLLTNADTSITWKICAOYTYGQPVVEGTFVAETNVVKYN--WEKEGVPVHKEG-----LIDGCLDV  
SIPC *B. amphitrite* 233 VVNTLFELEFAPESLESNEKTVTVKVCANETGTGKRLTAAANVSINATARGIGSWQYNNNDLLRNLMSIDYQFSDEQGCAT

A2M *O. moubata* 291 VVNTALRFLN-NYQVYKRLQLFAVQNETGTGITLNTKTSYISRTSNPLMLKGFIAEEHGNYFKLPLMSPYGTLLVKKPDDV  
A2M *Limulus* sp. 298 TVNSSALGFNE-QLRSYRAVNMFAEVTEKGTGKIMNATDSIYRTSNPLMLYLETSGKGYLPLGKLPFYCKLKVKEKDDGT  
SIPC *B. amphitrite* 313 DLVVSKIGIGHRNIGGGNTVIIITDVEEQGTGLRQVEVKEVSQAYSFINLR--QSDNAQKFLKPKLPFYGYTILSMRDGK

A2M *O. moubata* 370 PLPGEIQLIQLLTLQSEIIKTLWVRTDRRLSCKNYTSDALGLVKFRTLPLPQTTVVTVSVEATAVNYEARKYDTYGTTRINQP  
A2M *Limulus* sp. 377 PAPGEQIEICRFADRERWNRKRWLLEEKIRACKKFTSDEAGIIEKFTVPPQTPDITSPRFKAKALQYGGKGDG---NKLNPQ  
SIPC *B. amphitrite* 391 AAKNEIVKVVGYTAK-----YKERVISDEKPKVLPDDP---VDYTHKKYESHVKRTEGYTFFWFWESTEPN-RRTPGVC

A2M *O. moubata* 450 KAPSFTCKRG-TRQQQLCPNQPSKDPPLSCTSNYKQPLTVDYADPDLFHYQVIRGEGQTLTDFTFPGKFTASEAVPAGVDD  
A2M *Limulus* sp. 454 QHSFTVSSWYSPSGSHLQLEPTIEEIECGKPLTVFKYTYTGEKKQKFFYQIMARNFIVDTGSGFEHFLISEDKSGLTDE  
SIPC *B. amphitrite* 459 REYKTDENG-RIVYYIPQEAEDISIDISTSTSPGSDSSSHSTLTAFFSPSHYLSIDAHELPEQLPCSGDVTVKLLST

A2M *O. moubata* 529 SYLQEEVRNESL-PSN--VAEN---VS-NVGSLEIEIAPDSRYVPLAKLIVFYVRPDGEVIADSOEFVEKCLKNNVYFR  
A2M *Limulus* sp. 534 TYEPIDVITALSINPPNEPEWENNVI VPHHGETSLTILPSPFMNPSAKLIVFYVREDGETVDSRTKIVKCKLRNKVGLK  
SIPC *B. amphitrite* 538 EEEVVPAMYVYKILSRGKIKAG-----NMKNTLTFPVLKMGPEFKLVLVYIYKESGVEVADSRVFKVDKCFNPLVQVS

A2M *O. moubata* 602 FGSESVQFATSAAIHLTGSPLSFCGVGVVDKSVHLLKDDNQLTKAKVYDCLKRDLINRYTWPRQSS--YDYCR-----  
A2M *Limulus* sp. 614 FGEEKVLPASSTLQLTASPYSHCGGIGAVDKSVHLLSSDNRTIEEEVFN---KLGHDYWPQKQATSDYKYCED-----  
SIPC *B. amphitrite* 612 WDQKTVKPCDSASFTVRA SPNSVCGISAVDKSTELTGETSNOITLDTVFSKLLQQFINSFESPQVRSDDGYCRRELQLSLV

A2M *O. moubata* 673 -----RKSSTGPRYARRVWPGPRTSNV--EYVDSTITAFDESGLVIVLSDLTLETTRPCREAIY  
A2M *Limulus* sp. 685 -----YKFQKTEGEHEG-SFSSGFTSTN---YLDSTITAFDEAGLVISDMLELTRPCK-----  
SIPC *B. amphitrite* 692 DTLRSGGATVAELTGQSTPEGTSETSQTEGAAHSSSLFPPPTPRQRFRTRDEAIKIFDEAGFVLSNLMLLETRPCYKRV

A2M *O. moubata* 729 DRPFSAFAPASCPAGLFGPPAPSP-PPRMSIFSPVR--PVAESFDAALPGAPGPAVPAKSAVEVRTYFPETWLWELKE  
A2M *Limulus* sp. 734 --P-SGFE---DG-----GRPCQPYDVAFAAPQAAAN--RIGGGGEAGGFGG-GIRKKTNKPVVEIRTYFPETWLWELQN  
SIPC *B. amphitrite* 772 AKELPELT-EDKIQAQRDGEHEELDDLDSPVPALAFSKESADSRFAAEGCVSGGGGAAPPQEDQVRDFPPEAFLFSIET

A2M *O. moubata* 805 LDEHGNLDFKEKIPHTTEWVGSAVCINNQDGGIGVSDPARIKAFQPFASFSLPYSVIRGEVFPVTLVFNLYLDKCFEVE  
A2M *Limulus* sp. 799 IGATGELSLKRDIPHTTEWVGSAVCISEETGLGVSEAKATVKGQPFVFSVTLPSYVIRGEKVPVIVTVFNFLSECLPIK  
SIPC *B. amphitrite* 851 LDAEAGVKTSTSEMPDHTTEWVGSAICTNSKDGFGVLSNAKTSITTEKPPFFTEVSLPYSMKRGEILSMSVFNVLDSLSVY

A2M *O. moubata* 885 LTLAESDFEFLEER-TKTLVCGVSKV-VEKFSVKPKTIGEVNVTVFVAVGSENSEVCGDKPVEKVVAKDAVTOPLLYEAE  
A2M *Limulus* sp. 879 LSLSEQSDKFBEMQNDTNSYTSVCGGKSDTTRWMIKPRSLGQVNLTVYGASLPNEAICGNQDYSTVTARDATRQLLYEVE  
SIPC *B. amphitrite* 931 LEVGASDQYVEISGEV-AMGLCIAAGRTEVRSFPVNFGLGLGEVNIITVTRAQDGYCDEGN---TIAPGSDTVIRPIVVKPE

A2M *O. moubata* 963 GFPKEEDTSTVFCISQGEAGE-KPQFELALPEDVVEASARAYVAVSGDIMGPAIKNLDL-LVQVPTGCGEONMVKVTFPNVY  
A2M *Limulus* sp. 959 GFPKEEDTSTVFCISQGEAGE-KPQFELALPEDVVEASARAYVSTGDMGPAIKNLDL-LVRIPTGCGEONMVKVTFPNVY  
SIPC *B. amphitrite* 1007 GFPQEVTHSRFICLDKDDHHTETVNLVPEPEGLVPSQRAYFSVIGDLLGQTFQGLEGLIKISPTGAGEPNMITLVNPNY

A2M *O. moubata* 1041 VLDYLVKATCKQDADIEKKAVENLKTGYQRQKQRHSDGYSYAFGTNDROGSLFLLTAFVIRSFKQAERYTPIDEKMLQQSV  
A2M *Limulus* sp. 1038 VLDYLVKATGSIITDSIKKALNNMRKGYARQQNYRHDPGYSYAFGNRDKQGNLFLTAFVYRSFAQAEFILTINKNKLNETE  
SIPC *B. amphitrite* 1087 IRRYLETTGQLNERQRRQLEHNMKSGYQHRLLRFRRYDGSFSSYGNEDPQCGMMLTAFVVKAFREASEYIELEDETIINKAK

A2M *O. moubata* 1121 NNVLNKQIPVNGCFNNVGRVLSGLKGG--KVNESNPGLTAVLIALLEGGLGALHNSLTGALGCIDA---QKNPSPHNL  
A2M *Limulus* sp. 1118 NNVLNKQI-SNGCFRIKGLFNSGLKGGISNDNETPAFLTAVVLIASLEAGYKNETVIDQGISCLEA---LSNPSTSYLA  
SIPC *B. amphitrite* 1167 DWLILKKQN-TTGCFFRFGELIHKELKGG--GTERGGEALTAFLVMLALKDIAATTNELAN--GFACLEDGLLPLNKTYLSEI

A2M *O. moubata* 1196 LSVYATALAGQDVSAK--LEALES LAVHDG-ALTHVRN---G---GASADVETAAYAVLTYVVKLGQENLNKAQPIIKW  
A2M *Limulus* sp. 1194 LFAYATSLAGHP-SAKDYLAKEERAITEG-GKTFWKPSSSGRYWGNSTGEVIAQYAVLTLQHGASNLAKVTPILRW  
SIPC *B. amphitrite* 1242 LLAYTYLNMCGQDVKGERLVNKLMSKAKREGDILYWEGRDRLSFGGSRAVDVEMTAMSKLMLHISGKGNMEEAARARW

A2M *O. moubata* 1266 MATKRNSGGFSSTQDTVLGLOALSAFSSQLSKDPDLAVKVSQESQVEESYDLKEDSKLVLQO--RKVNLPNTLTGHT  
A2M *Limulus* sp. 1272 LAKQNYRGGFYSTQDTVIALQAMSKFATIIYKDELLEVGVSSGFEKKIMLTKDMSILMQT--FRLQVTPSPVDFEAT  
SIPC *B. amphitrite* 1322 INTQRNSNGGFKSTQDTIVAVEALSEFASRTFASDLATSVSVTAGGETVQRMVDGDNRLLYQESKVPDLTLPGLTMNFDVS

A2M *O. moubata* 1344 GTGCALISTTLKYNVHTAPTSQCFELAVTF--VLDPTCTSA LLRVCTKFDGEQ-PSNMAVVELKLVSGVYTISSDDIKEY  
A2M *Limulus* sp. 1350 GSQCGLVQTSLRYNVNTPPPRKGFHLEVYVKRGLYRDCINAHATCVKYDGGKGVSNMAVLEMKMVSGWIPDEESIKNIV  
SIPC *B. amphitrite* 1402 PPGQADVYSIFRFSSTLEVDPAFSLGLVAAK--K-RGRTGYELEVCTSLFLNSGAVDRALLETLPSPGVAVDRLDR

A2M *O. moubata* 1421 QKADVALKRHEIDRNQVNFYFEVTSSEKCFEVTVHKEFEVVDKAKPATVKVYDYVQLEINAKSVSYSLTG-CES-PQ--  
A2M *Limulus* sp. 1430 DEEELNLRRYEVDGNQLNLYFSELTDQNLCFNFWLQEDIEVQETKPATRILYDYVELEQEVVTSYSIDENCEKLPPLP  
SIPC *B. amphitrite* 1479 RGS--AVRSVEIKEKGVIFTLQGVAAEDKTCLEFRIIQENEVEQLKPSIVKVHDFYRPEERNIQEMELTPAA-----