

Hs Mps1	CI SVKGRI YSI LKQI GSGGSSKVFQVLN- EKKQI YAI KYVNLEEADNQT LDSYRNEI AY LNKLQQHSDKI I RLYDYEI T-	578
Ms Mps1	CI SVNGRI YSI LKQI GSGGSSKVFQVLN- EKKQI NAI KYVNLEDADSQT I ESYRNEI AFLNKLQQHSDKI I RLYDYEI T-	593
Gg Mps1	CI AVKGRI YTI LKQI GSGGSSKVFQVLN- EKKQLYAV KYVNLEEADQQT VESYKNEI AHL SKLQEHSDKI I RLYSYEI T-	611
Xl Mps1	CI VVKGRAYAVLKQI GTGGSSKVFQVMD- DKKHLYAI KYVNLEEADQQT I ESYQNEI SHLNKLQQHCDKI I RLFDYEI T-	615
Dm Mps	I LKI KNHEYTI DKKL GCGGSSSVFLARRS DSGNEFAL KVVDLQ- ADPQVVQGYLNETKL LAKLQGN- VCVVALYDYQLVR	406
Sp Mps1	VVT VANLQFI KLGVV GKGSSMRYRI FSP DNSRLYAL KEVNF I NADQTTI QGYKNEI AL LRKL SGN- DRI I KLYAAEVND	386
Sc Mps1	I I TVNDSQYEKI ELL GRGGSSRVYK VKG- SGNRVYAL KRVS FDAF DDSS I DGF KGEI ELLE KLKDQ- KRVI QL LDYEMG-	508
Hs Mps1	- DQYI YMVMECGNI DLNSWLKKKKS - - I DPWERKSYWKNML EAVHTI HQHGI VHS DL KPANFLI VDGML KLI DFGI ANQM	655
Ms Mps1	- EQYI YMVMECGNI DLNSWLKKKKS - - I NPWERKSYWKNML EAVHI I HQHGI VHS DL KPANFVI VDGML KLI DFGI ANQM	670
Gg Mps1	- DQHI YMVMECGNI DLNSWLKKKRN - - I DPLERKSYWKNML EAVHTI HEHGI VHS DL KPANFLI VDGML KLI DFGI ANQM	688
Xl Mps1	- DQHI YMVMECGNI DLNTWLRKKKT - - I NPWERKSYWKNML EAVHTI HQHGI VHS DL KPANFLI VDGML KLI DFGI ANQI	692
Dm Mps1	EESKL YMVMEKGDCLNKI LQSYTTN- LPLYSLMNI LYQML QAVNYI HQHGI VHS DL KPANFLM VSGRL KLI DFGI ASNI	485
Sp Mps1	TLGQL NMVMECGETDLANL LMKNMKPI NLNFI RMYWEQML EAVQVVHDQNI VHS DL KPANFL LVEGNL KLI DFGI AKAI	466
Sc Mps1	- DGLL YLI MECGDHDL S QI LNQRSGMPL DFNFRF YTK EML LCI KVVHDAGI VHS DL KPANFVLV KGI LKI I DFGI ANAV	587
Hs Mps1	QPDTT SVVKDSQVGT VNYMPPEAI KDMSSSR - - - - ENKSKSKI SPKSDVWSL GCI LYYMTYGKTPFQI I NQI S KL HAI	731
Ms Mps1	QPDTT SI VKDSQVGT VNYMAPEAI RDMSSSR - - - - ENSKI RTK VSPRSDVWSL GCI LYYMTYGRTPFQHI I NQVSKL HAI	746
Gg Mps1	QPDVT SI VKDSQVGT MNYMPPEAI QDMSSSYG - - - - ENKSSQSKI SPKSDVWSL GCI LYCMTYGRTPFQHI T NTRKKL YAI	765
Xl Mps1	QPDVT SI VKDSQVGT I NYMPPEI RDTT SYA - - - - ENKPRS KI SPKGDVWSL GCI LYCMTYGRTPFQHI T NQI AKL HSI	768
Dm Mps1	AVDST SI I KFSQA GTFNYI SPEALTD T STGNSPMRRADQPKI KI STKSDVWSL GCI LYLL YQKTPFQHI RNVYAKMSAI	565
Sp Mps1	GNDTT NI HRDSHI GTI NYMAPEAL TDMNAHT - - - - NSGVKL V KLGRPSDVWSL GCI LYQMVYGRAPFAHLK- MI QAI AAI	541
Sc Mps1	PEHTVNI YRET QI GTPNYMAPEALVAMNYTQNSENQHEGNK W VGRPSDMWSC GCI I YQMI YGKPPYGSFQ- GQNRLLAI	666
Hs Mps1	I DPNHEI EFPDI PEKD- - - - - LQDVL KCCL KRDPKQRI SI PELL AHPYVQI QTH	780
Ms Mps1	I NPAHEI EFPEI SEKD- - - - - LRDVL KCCL VRNPKERI SI PELL THPYVQI QPH	795
Gg Mps1	VDPHYEI EFPDI AEKD- - - - - LQDVL KRCL VRNPKQRI SVSELL VHPYVQI QTQ	814
Xl Mps1	LDPGYEI EFPNI PEKD- - - - - LQDVL RKCL VRNPKERI SI AELL VHPYVQI QPH	817
Dm Mps1	TTPGT SI EYPAI PYYPI M- - - - - LVHMA KNCL QLNPKKRPSCTELL QYPFHMI I PL	617
Sp Mps1	PNEYQYHI HFPEVAL PANAVQEKE GSLPGVTVGPDL MDVMKRCL ERDQRKRL TI PELL VHPFLNPL PS	608
Sc Mps1	MNPDVKI PFPEHTSNNEKI P- - - - - KSAI ELMKACL YRNPKRWTVDKVL SSTFLQPFMI	721

Figure S1