

# Human Protein-Serine Phosphatase Catalytic Domain Alignment

PP2Ba 69 ASILRQEK---NLLDIDAPVTVCGDIHGQFFDLMLKLFVGGSPANTR-YLFLGDYVDRGYFSIECVL  
 PP2Aa 36 KEILTKES---NVQEVRCPVTVCGDVHGQFHDLMELFRIGGKSPDTN-YLFMGDYVDRGYYSVETVT  
 PP4 33 REILVEES---NVQRVDSPTVTVCGDIHGQFYDLKELFRVGGDVPETN-YLFMGDFVDRGFYSVETFL  
 PP6 32 CDLLEES---NVQPVSTPVTVTVCGDIHGQFYDLCELFRFGGQVPDTN-YIFMGDFVDRGYYSLETFT  
 PP1a 43 REIFLSQP---ILLELEAPLKICGDIHGQYYDLRLFEYGGFPPELN-YLFLGDYVDRGKQSLETIC  
 PP5 217 KEVLSKLSLTVETTLKETEKITVCGDTHGQFYDLNIFELNGLPSETNPYIFNGDFVDRGSFSVEVIL  
 PP2Ca 53 WSFFAVYD---GHAGSQVAKYCCEHLLDHITNNQDFKGSAGAPSVEN---VKNGIRTGFLEIDEHM

PP2Ba 132 YLWALKILYPKTLFLLRGNHECRHLTEYFTFKQCECKIKY-SERVYDACMDAFDCLPLAALMNQ  
 PP2Aa 99 LLVALKVRYRERITILRGNHESRQITQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALVDG  
 PP4 96 LLLALKVRYPRITILRGNHESRQITQVYGFYDECLRKYGSVTVWRYCTEIFDYLSLSAIIIDG  
 PP6 95 YLLALKAKWPRITLLRGNHESRQITQVYGFYDECQTKYGNANAWRYCTKVFDMPLTVAALIDE  
 PP1a 106 LLLAYKIKYPENFFLLRGNHECASINRIYGFYDECKRRY-NIKLWKTFTDFCNCLPIAAIVDE  
 PP5 285 TLFGFKLLYPDFHLLRGNHETDNMNQIYGFEGEVKAKY-TAQMYELFSEVFEWLPLAQQCING  
 PP2Ca 113 RVMSEKKHKGADRSGSTAAVGVLIISPQHTY-FINCGDSRGLLCRNRKRVHFFTDHDKPSNPLEKE

PP2Ba 194 QFLCVHGGLSP-EINTLDDIRKLD---RFKEPPAYGPMCDILWSDPEDFGNEKTQEH  
 PP2Aa 162 QIFCLHGGLSP-SIDTLDHIRALD---RLQEVPHGPMCDLLWSDPD-DRGGW-----  
 PP4 159 KIFCVHGGLSP-SIQTLDQIRTID---RKQEVPHDPMCDLLWSDPE-DTTGW-----  
 PP6 158 QILCVHGGLSP-DIKTLDQIRTIE---RNQEIHPHGAFCDLWSDPE-DVDTW-----  
 PP1a 168 KIFCCHGGLSP-DLQSMEQIRIRIM---RPTDVPDQGLLCDLLWSDPKDKVQGW-----  
 PP5 347 KVLIMHGGLFSEDEVTLDDIRKIE---RNRQPPDSGPMCDLLWSDPQ-PQNGR-----  
 PP2Ca 174 RIQNAGGSVMIQRVNGSLAVSRALGDFDYKCVHGKGPTQLVSPPEVHDIER-----

PP2Ba 248 FTHNTVRGCSYFYSYPAVCEFLQHNNLSILRAHQAQDAGYRMYRKSQTG  
 PP2Aa 210 --GISPRGAGYTFGQDISETFNHANGLTLVSRAHQLVMEGYNWCHD-----  
 PP4 207 --GVSPRGAGYLFGSDVVAQFNAANDIDMICRAHQLVMEGYKWHFN-----  
 PP6 206 --AISPARGAGWLFQAKVTNEFVHINNLIKICRAHQLVHEGYKFMFD-----  
 PP1a 217 --GENDRGVSFTFGAEVVAKFLHKHLDLICRAHQVVEDGYEFFAK-----  
 PP5 396 --SISKRGVSCQFGPDVTKAFLEENLDYIIRSHVKAEGYEVVAHG-----  
 PP2Ca 227 ---SEEDDQFIILACDGIWDMGNEELCDFVRSRLVETDDLEKVCN-----

PP2Ba 298 FPSLITIFSAPNYLDVYNNKAAVL 318  
 PP2Aa 254 -RNVVTFIFSAPNYCYRCGNQAAIM 276  
 PP4 251 -ETVLTVWSAPNYCYRCGNVAAIL 273  
 PP6 250 -EKLVTVWSAPNYCYRCGNIASIM 272  
 PP1a 261 -RQLVTLFSAAPNYCGEFDNAGAMM 283  
 PP5 440 -GRCVTVFSAAPNYCDQMGNKASYI 462  
 PP2Ca 270 -----EVVDTCLYKGSRDNMSVIL 288

Human Protein-Serine  
 Phosphatase 2B  
 Calcineurin  
 (residues 2-185, white)  
 Calmodulin  
 (dark grey)  
**PDB: 1AUI**

