

Table S2: Protein sequences used to analyse evolution of cyclophilin domains in dual class immunophilins

Name	Accession-no.	Species	Group	Size (amino acids/kDa)	Domains ^a
<i>Ta</i> FCBP51.3	XP_951815	<i>Theileria annulata</i>	Apicomplexa	459/51.3 ^b	FKBP TPR repeats cyclophilin
<i>Tp</i> FCBP51.4	XP_765469	<i>Theileria parva</i>	Apicomplexa	460/51.4	FKBP TPR repeats cyclophilin
<i>Tg</i> FCBP57.3	AAAX51680	<i>Toxoplasma gondii</i>	Apicomplexa	521/57.3	FKBP TPR repeats cyclophilin
<i>Bb</i> FCBP51.1	YP_00188384 1	<i>Babesia bovis</i>	Apicomplexa	339/51.1	FKBP TPR repeats cyclophilin
<i>Gj</i> Cyp21.5	AAM93985	<i>Griffithsia japonica</i>	Rhodophyta	198/21.5	Single cyclophilin
<i>Pt</i> FCBP51.3	XP_00144455 4	<i>Paramecium tetraurelia</i> strain d4-2	Ciliophora	456/51.3	FKBP TPR repeats cyclophilin
<i>Pt</i> FCBP52.6	XP_00144526 8	<i>Paramecium tetraurelia</i> strain d4-2	Ciliophora	467/52.6	FKBP TPR repeats cyclophilin
<i>Tt</i> FCBP131.6	XP_976669	<i>Tetrahymena thermophila</i>	Ciliophora	1134/131.6	ATB-binding FKBP TRP cyclophilin
<i>Cw</i> Cyp19.4	ZP_00517449	<i>Crocospaera watsonii</i>	Cyanobacteria	174/19.4	Single cyclophilin
<i>Pca</i> FCBP52.5	BT031867	<i>Phytophthora capsici</i>	Oomycetes	479/52.5	FKBP TPR repeats cyclophilin
<i>Mm</i> CypD	NP_080628	<i>Mus musculus</i>	Vertebrata	370/40.7	Cyclophilin TRP repeats
<i>Eh</i> Cyp18.1	EAL51109	<i>Entamoeba histolytica</i>	Entamoebidae	167/18.1	Single cyclophilin
<i>Ot</i> CPR7	CAL55134	<i>Ostreococcus tauri</i>	Chlorophyta	>266 (only partial sequence)	FCBP cyclophilin
<i>Tc</i> Cyp22.9	XP_808570	<i>Trypanosoma cruzi</i>	Kinetoplastida	210/22.9	Single cyclophilin
<i>Ss</i> Cyp18.5	NP_441161	<i>Synechocystis</i> sp. PCC 6803	Cyanobacteria	171/18.5	Single cyclophilin
<i>Ci</i> Cyp1	AAV48823	<i>Codonopsis lanceolata</i>	Spermatophyta	174/18.9	Single cyclophilin
<i>Cb</i> Cyp18.6	39582840	<i>Caenorhabditis briggsae</i>	Nematoda	172/18.6	Single cyclophilin
<i>Bm</i> Cyp21	ZP_01088483	<i>Blastopirellula marina</i>	Bacteria, Planctomycetes	199/21.0	Single cyclophilin
<i>Sa</i> Cyp7	ZP_01467010	<i>Stigmatella aurantiaca</i>	Bacteria, Proteobacteria	171/18.8	Single cyclophilin
<i>Ar</i> FCBP38.1	AAU82569	uncultured archaeon GZfos18C8	Archea	357/38.1	FKBP Cyclophilin
<i>Ar</i> FCBP39.7	CAI64202	uncultured archaeon GZfos18C8	Archea	369/39.7	FKBP Cyclophilin
<i>Cb</i> CypB	ZP_00909097	<i>Clostridium beijerincki</i>	Bacteria, Clostridia	226/24.1	Cyclophilin
<i>Mb</i> Cyp15.3	YP_566142	<i>Methanococcoides burtonii</i>	Archaea, Methanomicrobia	141/15.3	Cyclophilin
<i>Gj</i> CFBP41	CAL65762	<i>Gramella forsetii</i>	Flavobacteria	376/41.0	Cyclophilin FKBP
<i>Ca</i> CFBP41.7	ZP_00950792	<i>Croceibacter atlanticus</i>	Flavobacteria	378/41.7	Cyclophilin FKBP
<i>Fb</i> CFBP42.3	ZP_01106954	<i>Flavobacteriales bacterium</i>	Flavobacteria	386/42.3	Cyclophilin FKBP
<i>Fba</i> CFBP42.1	ZP_01202369	<i>Flavobacteria bacterium</i>	Flavobacteria	385/42.1	Cyclophilin FKBP
<i>Cs</i> CFBP42.8	ZP_01051599	<i>Cellulophaga</i> sp. MED134	Flavobacteria	390/42.8	Cyclophilin FKBP
<i>Lb</i> CFBP44.4	ZP_01061314	<i>Leeuwenhoekiella blandensis</i>	Flavobacteria	392/44.4	Cyclophilin FKBP
<i>Dp</i> CFBP36.7	YP_065381	<i>Desulfotalea psychrophila</i>	Proteobacteria	344/36.7	Cyclophilin FKBP

Table S2: Protein sequences used to analyse evolution of cyclophilin domains in dual class immunophilins (continued)

Name	Accession-no.	Species	Group	Size (amino acids/kDa)	Domains ^a
<i>Td</i> CFBP35.5	NP_972990	<i>Treponema denticola</i> ATCC 35405	Spirochaetes	322/35.5	Cyclophilin FKBP
<i>Bh</i> CFBP38	YP_00188384 1	<i>Borrelia hermsii</i> DAH	Spirochaetes	339/38	Cyclophilin FKBP
<i>Hm</i> Cyp22.7	YP_137701	<i>Haloarcula marismortui</i>	Archaea, Halobacteria	209/22.7	Single cyclophilin
<i>Hw</i> Cyp19.7	YP_658820	<i>Haloquadratum walsbyi</i>	Archaea, Halobacteria	179/19.7	Single cyclophilin
<i>Mg</i> Cyp17.2	XP_366921	<i>Magnaporthe grisea</i>	Fungi	159/17.2	Single cyclophilin
<i>Pn</i> Cyp18	EAT84755	<i>Phaeosphaeria nodorum</i>	Fungi	164/18.0	Single cyclophilin
<i>Aa</i> Cyp19.4	EAT41295	<i>Aedes aegypti</i>	Insecta	176/19.4	Single cyclophilin

Table S3: Protein sequences used to analyse evolution of FKBP domains in dual class immunophilins

Name	Accession-no.	Species	Group	Size (amino acids/kDa)	Domains ^a
<i>Pt</i> FCBP51.3	XP_001444554	<i>Paramecium tetraurelia</i> strain d4-2	Ciliophora	456/51.3	FKBP TPR repeats cyclophilin
<i>Pt</i> FCBP52.6	XP_001445268	<i>Paramecium tetraurelia</i> strain d4-2	Ciliophora	467/52.6	FKBP TPR repeats cyclophilin
<i>Tg</i> FCBP57.3	AAX51680	<i>Toxoplasma gondii</i>	Apicomplexa	521/57.3	FKBP TPR repeats cyclophilin
<i>Lm</i> FKBP47.7	CAJ07250	<i>Leishmania major</i>	Kinetoplastida	432/47.7	FKBP TRP
<i>Tn</i> FKBP34.2	CAG13057	<i>Tetraodon nigroviridis</i>	Vertebrata	303/34.2	FKBP TRP
<i>Pca</i> FCBP52.5	BT031867	<i>Phytophthora capsici</i>	Oomycetes	479/52.5	FKBP TPR repeats cyclophilin
<i>Tt</i> FCBP131.6	XP_976669	<i>Tetrahymena thermophila</i>	Ciliophora	1134/131.6	ATB-binding FKBP TRP
<i>Ta</i> FCBP51.3	XP_951815 ^b	<i>Theileria annulata</i>	Apicomplexa	459/51.3 ^b	cyclophilin FKBP TPR repeats cyclophilin
<i>Bb</i> FCBP51.1	YP_001883841	<i>Babesia bovis</i>	Apicomplexa	339/51.1	FKBP TPR repeats cyclophilin
<i>Tp</i> FCBP51.4	XP_765469	<i>Theileria parva</i>	Apicomplexa	460/51.4	FKBP TPR repeats cyclophilin
<i>Py</i> FKBP35	XP_730233	<i>Plasmodium yoelii</i>	Apicomplexa	306/35.0	FKBP TRP
<i>Pc</i> FKBP31	CAH81605	<i>Plasmodium chabaudi</i>	Apicomplexa	271/31.0	FKBP TRP
<i>Pb</i> FKBP33.1	XP_672280	<i>Plasmodium berghei</i>	Apicomplexa	289/33.1	FKBP TRP
<i>Pj</i> FKBP34.8	NP_701815	<i>Plasmodium falciparum</i>	Apicomplexa	304/34.8	FKBP TRP
<i>Ec</i> FKBP12.3 ^c	CAB57241	<i>Entodinium caudatum</i>	Ciliophora	113/12.3	Single FKBP
<i>Ss</i> FKBP21.6	NP_440378	<i>Synechocystis</i> sp. PCC 6803	Cyanobacteria	201/21.6	Single FKBP
<i>Te</i> FKBP21.6	YP_721230	<i>Trichodesmium erythraeum</i>	Cyanobacteria	203/21.6	Single FKBP
<i>Td</i> CFBP35.5	NP_972990	<i>Treponema denticola</i> ATCC 35405	Spirochaetes	322/35.5	Cyclophilin FKBP
<i>Cs</i> CFBP42.8	ZP_01051599	<i>Cellulophaga</i> sp. MED134	Flavobacteria	390/42.8	Cyclophilin FKBP
<i>Lb</i> CFBP44.4	ZP_01061314	<i>Leeuwenhoekiella blandensis</i>	Flavobacteria	392/44.4	Cyclophilin FKBP
<i>Gj</i> CFBP41	CAL65762	<i>Gramella forsetii</i>	Flavobacteria	376/41.0	Cyclophilin FKBP
<i>Fb</i> CFBP42.3	ZP_01106954	<i>Flavobacteriales bacterium</i>	Flavobacteria	386/42.3	Cyclophilin FKBP
<i>Fb</i> CFBP42.1	ZP_01202369	<i>Flavobacteria bacterium</i>	Flavobacteria	385/42.1	Cyclophilin FKBP
<i>Ca</i> CFBP41.7	ZP_00950792	<i>Croceibacter atlanticus</i>	Flavobacteria	378/41.7	Cyclophilin FKBP
<i>Tc</i> MIP	Q09734	<i>Trypanosoma cruzi</i>	Kinetoplastida	192/22.1	Single FKBP
<i>No</i> FKBP22.1	YP_343250	<i>Nitrosococcus oceani</i>	Proteobacteria	225/24.9	FKBP_N FKBP
<i>Ps</i> FKBP14.5	YP_548695	<i>Polaromonas</i> sp. JS666	Proteobacteria	140/14.5	Single FKBP
<i>Dp</i> CFBP36.7	YP_065381	<i>Desulfotalea psychrophila</i>	Proteobacteria	344/36.7	Cyclophilin FKBP
<i>Yf</i> FKBP15.6	XP_500249	<i>Yarrowia lipolytica</i>	Fungi	144/15.6	Single FKBP
<i>Bh</i> CFBP38	YP_001883841	<i>Borrelia hermsii</i> DAH	Spirochaetes	339/38	Cyclophilin FKBP
<i>Gs</i> FKBP16.3	ZP_01389980	<i>Geobacter</i> sp. FRC-32	Proteobacteria	150/16.3	Single FKBP
<i>Ar</i> FCBP38.1	AAU82569	uncultured archaeon GZfos18C8	Archea	357/38.1	FKBP Cyclophilin
<i>Ar</i> FCBP39.7	CAI64202	uncultured archaeon GZfos18C8	Archea	369/39.7	FKBP Cyclophilin
<i>Mba</i> FKBP18.8	YP_305460	<i>Methanosarcina barkeri</i>	Archea, Methanomicrobia	169/18.8	Single FKBP

Table S3: Protein sequences used to analyse evolution of FKBP domains in dual class immunophilins (continued)

Name	Accession-no.	Species	Group	Size (amino acids/kDa)	Domains ^a
<i>Mbu</i> FKBP16.6	YP_566866	<i>Methanococcoides burtonii</i>	Archea, Methanomicrobia	152/16.6	Single FKBP
<i>Mt</i> FKBP17.2	O52980	<i>Methanothermococcus thermolithotrophicus</i>	Archea, Methanococci	154/17.2	Single FKBP
<i>Mba</i> FKBP20.6	YP_305459	<i>Methanosarcina barkeri</i>	Archea, Methanomicrobia	189/20.6	Single FKBP
<i>Ma</i> FKBP19.4	NP_618030	<i>Methanosarcina acetivorans</i>	Archea, Methanomicrobia	181/19.4	Single FKBP
<i>Mma</i> FKBP17.5	ZP_01392854	<i>Methanoculleus marisnigri</i>	Archea, Methanomicrobia	167/17.5	Single FKBP
<i>Or</i> CPR7	CAL55134	<i>Ostreococcus tauri</i>	Chlorophyta	>266 (only partial sequence)	FCBP cyclophilin
<i>Cj</i> FKBP15.4	ZP_01386099	<i>Chlorobium ferrooxidans</i>	Bacteria, Chlorobia	142/15.4	Single FKBP