

Takifugu_fasciatus	..MSVTVKAYLLGKDEVVVKVRRF	AVDQVSS	31
Homo_sapiens	MASLTVKAYLLGKDEAARIRRF	FCFSPEPIFAAFAAAGPG	42
Mus_musculus	MASLTVKAYLLGKDEATRRIRRF	FCFSPEPIFAAFAAAGPG	42
Danio_rerio	MSMVKAYLLGKDECNKIRRF	AVDQVSS	31
Takifugu_rubripes	MSVTVKAYLLGKDEVVVKVRRF	AVDQVSS	31
Xenopus_tropicalis	NPVTVKAYLLGKDEIRIRRF	QLFLPAAGKFKASVSS	38
Oryctolagus_cuniculus	MASLTVKAYLLGKDEAARIRRF	FCFSPEPIFAAFAAAGPG	42
Xiphophorus_maculatus	MSVTVKAYLLGKDEQVKIRRF	AVDQVSS	31
Orcinus_orca	MASLTVKAYLLGKDEAARIRRF	FCFSAPPTATATAS	42
Gadus_morhua	MSVTVKAYLLGKDEAARIRRF	AVDQVSS	31
Sus_scrofa	MRCGASPAFPTKAARPLTPPPPPPPPGSS	LAPQLVY	80
Bos_taurus	MASLTVKAYLLGKDEAARIRRF	FCFSPEPIFAAFAAAGPG	42
Gallus_gallus	MAALTVKAYLLGKDEATRIRRF	SLMPVRYQAVIRVA	39
Columba_livia	..	0	
Takifugu_fasciatus	..FHYLCRKTAEIENNKNSGNMVYNDPDCGLVAHSS	TDDELLMGLACMKDSTIRRIYIKENKTHRRDPFLHAF..	108
Homo_sapiens	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	108
Mus_musculus	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	108
Danio_rerio	FEYLCRKALDINVCGLRTAPIQMVYNDPDCGLVAHSS	DELLMGLALYKDDIRIRIKORLHARRDSSPHKLPGLPTITP	110
Takifugu_rubripes	..FHYLCRKTAEIENNKNSGNMVYNDPDCGLVAHSS	TDDELLMGLACMKDSTIRRIYIKENKTHRRDPFLHAF..	108
Xenopus_tropicalis	..CELLANKVTGVQGLGGAGQIMVYNDPDCGLVAHSS	TDDELLHMGSLLENLVDIRIYIKENKTCRRD	103
Oryctolagus_cuniculus	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	108
Xiphophorus_maculatus	FEYLSRKVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLMGLSLYKDDIRIRIKENKTHRRDPFLHAF..	108
Orcinus_orca	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	108
Gadus_morhua	FNYSKKVYDFNSLNRIQMVYNDPDCGLVAHSS	DELLMGLSLYKDDIRIRIKENKTHRRDPFLHAF..	110
Sus_scrofa	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	146
Bos_taurus	PCERILSRVAALFPAALRPGGQQAIRDEDDGDLVAHSS	DELLTNAMSVYKDDIRIYIKENKTCRRD	146
Gallus_gallus	..ELFQGLIRAGPPAERMLVNDPDCGLVAHSS	DELLMGLSLYKDDIRIRIKENKTHRRDPFLHAF..	99
Columba_livia	..	44	
Takifugu_fasciatus	..IIPPPPPG	..AIIITLPIPMAPQVIRF	175
Homo_sapiens	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Mus_musculus	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Danio_rerio	..IIFSPGCHMGPSPMGPPGPPIMGPPPIHIP	..IPMVIRF	189
Takifugu_rubripes	..IIPPPPPG	..AIIITLPIPMAPQVIRF	175
Xenopus_tropicalis	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Oryctolagus_cuniculus	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Xiphophorus_maculatus	..PPPIIIHKG	..PAITAPPTIMAPPAVIRF	177
Orcinus_orca	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Gadus_morhua	..IPPPPPGPG	..MPHAPP	185
Sus_scrofa	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	205
Bos_taurus	..IRPPCAQIAIRNNVIRF	..VTCDCGCGVAGTRIRKCSVCPVNDICSACQAGCMIRITVILP	167
Gallus_gallus	..HRSQCSQEP	..PRDVIH	158
Columba_livia	..HRSQCSQEP	..PRDVIH	103
Takifugu_fasciatus	..IWIWELQ	..WIPRGKMKVMRI	234
Homo_sapiens	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Mus_musculus	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Danio_rerio	..IIFMANVFWLP	..RGRKIRKMRIG	253
Takifugu_rubripes	..IWIWELQ	..WIPRGKMKVMRI	234
Xenopus_tropicalis	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Oryctolagus_cuniculus	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Xiphophorus_maculatus	..IWIWELQ	..WIPRGKMKVMRI	234
Orcinus_orca	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Gadus_morhua	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Sus_scrofa	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Bos_taurus	..PSPFCHLS	..EGHSISRWLRKRLKIG	231
Gallus_gallus	..FQSPFLNPFWYPRGRRLKMRIG	..VPPFP	220
Columba_livia	..FQSPFLNPFWYPRGRRLKMRIG	..VPPFP	173
Takifugu_fasciatus	..ANVFLTKNI	..GIGVAAHLSPLGI	299
Homo_sapiens	..PSNNTLKNVGS	..VAAALSPGI	306
Mus_musculus	..PSNNTLKNVGS	..VAAALSPGI	308
Danio_rerio	..ANVFLTKNI	..GIGVAAHLSPLGI	325
Takifugu_rubripes	..ANVFLTKNI	..GIGVAAHLSPLGI	301
Xenopus_tropicalis	..QNPVNTLKNVGS	..VAAALSPGI	310
Oryctolagus_cuniculus	..PSNNTLKNVGS	..VAAALSPGI	305
Xiphophorus_maculatus	..ANVFLTKNI	..GIGVAAHLSPLGI	297
Orcinus_orca	..PSNNTLKNVGS	..VAAALSPGI	306
Gadus_morhua	..ANVFLTKNI	..GIGVAAHLSPLGI	330
Sus_scrofa	..PSNNTLKNVGS	..VAAALSPGI	344
Bos_taurus	..PSNNTLKNVGS	..VAAALSPGI	306
Gallus_gallus	..ANVFLTKNI	..GIGVAAHLSPLGI	277
Columba_livia	..DPNVTLEKNVGS	..VAAALSPGI	251
Takifugu_fasciatus	..TSVGTQ	..GNRDS	340
Homo_sapiens	..LAEQMRKI	..ALES	368
Mus_musculus	..LAEQMRKI	..ALES	352
Danio_rerio	..ESVS	..EGTKKQ	380
Takifugu_rubripes	..TSVGTQ	..GNRDS	343
Xenopus_tropicalis	..IAKRMKI	..ALNSPLP	375
Oryctolagus_cuniculus	..LAEQMRKI	..ALETGA	367
Xiphophorus_maculatus	..VNQSK	..VS	342
Orcinus_orca	..LVEQVNI	..ALES	368
Gadus_morhua	..KPNLS	..GGIIS	376
Sus_scrofa	..LVEQVNI	..ALES	406
Bos_taurus	..LVEQVNI	..ALES	368
Gallus_gallus	..VAIQ	..QDMV	329
Columba_livia	..VAIQ	..QDMV	322
Takifugu_fasciatus	..GQQHPTGL	..KEAALYPHL	412
Homo_sapiens	..PSQGP	..TGLKEAALYPHL	440
Mus_musculus	..PSQGP	..TGLKEAALYPHL	404
Danio_rerio	..TRDGTGL	..RTAALYPHL	452
Takifugu_rubripes	..GQQHPTGL	..KEAALYPHL	415
Xenopus_tropicalis	..TRS	..SALPTHAPTGLKEAALYPHL	452
Oryctolagus_cuniculus	..PSQGP	..TGLKEAALYPHL	439
Xiphophorus_maculatus	..PQGP	..TGLKEAALYPHL	414
Orcinus_orca	..PSQGP	..TGLKEAALYPHL	440
Gadus_morhua	..GQGP	..TGLKEAALYPHL	446
Sus_scrofa	..PSQGP	..TGLKEAALYPHL	478
Bos_taurus	..PSQGP	..TGLKEAALYPHL	440
Gallus_gallus	..PSQGP	..TGLKEAALYPHL	381
Columba_livia	..S	..QDPP	397

Figure S6 Multiple alignment of the P62 amino acid sequence of *T. fasciatus* with other animals.

Notes: High, medium and low conserved amino acid residues are displayed in black, red and blue shades respectively.