

## Supplementary File S2: Multiple sequence alignment of the polyD region of human Phafin2 orthologues

Homo_sapiens (Human)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Ficedula_albicollis (Collared_flycatcher)	STRSDSYSQS-----PKSPLNDSDDDDDEDSSD-----	249
Ciona_savignyi (Pacific_transparent_sea_squirt)	PPQN-----NKLAFGDTSISDSESSDD---TRT-----	254
Latimeria_chalumnae (Coelacanth)	SKSDS-YRRS---PKSSI--DNVSEDEDEDSSD-----	250
Petromyzon_marinus (Sea_lamprey)	AGPL-----SSSSDDLSDDEDDDDDDDDGGD-----	250
Lepisosteus_oculatus (Spotted_gar)	ARSDS-YRSR----SKFPAPSVSDDDDDEDSSD-----	248
Myotis_lucifugus (Little_brown_bat)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Pongo_pygmaeus (Bornean_orangutan)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Dichotomylctere_nigroviridis (Green_spotted_puffer)	PRSDS-MSR----PAATFSSSNLCWDEGSSSSSD-----	246
Pteropus_vampyrus (Large_flying_fox)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Loxodonta_africana (African_bush_elephant)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Procavia_capensis (Rock_hyrax)	-SRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	245
Ciona_intestinalis (Vase_tunicate)	NVPN-----NKLAFGDTSYSSDSESN---EA-----	258
Gasterosteus_aculeatus (Three_spined_stickleback)	ARSDS-LGR----LGSKFHN--MSDDDDDDSSD-----	244
Tursiops_truncatus (Bottlenose_dolphins)	PTRSDSYSQS-----LKSTLNDSDDDDDDSSD-----	249
Poecilia_formosa (Amazon_molly)	PRSES-MSR----PGANFNNTLSDDDDDDSSD-----	245
Mustela_putorius (Ferret)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Otolemur_garnettii (Northern_greater_galago)	PTRSDSYGQS-----LKSSLNDSDDDDDDSSD-----	249
Chlorocebus_sabaeus (Green_monkey)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Dasypus_novemcinctus (Nine_banded_armadillo)	PNRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Tupaia_belangeri (Northern_treeshrew)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	250
Anolis_carolinensis (Carolina_anole)	SGRSDSYSQS-----LKPLNDISDDDDDDSSD-----	249
Pelodiscus_sinensis (Chinese_softshell_turtle)	PTRSDSYSQS-----PKSPINDVSDDDDDDSSD-----	249
Ochotona_princeps (American_pika)	PARSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Erinaceus_europaeus (European_hedgehog)	PARSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Vicugna_pacos (Alpaca)	PARSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Sorex_araneus (Common_shrew)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Choloepus_hoffmanni (Hoffmann's_two-toed_sloth)	-----	146
Macropus_eugenii (Tamar_wallaby)	PSRSDSYSQS-----PKSPLNVSDDDDDEDSSD-----	249
Heterocephalus_glaber_1 (Naked_mole-rat)	PGRSDSYSQS-----LKSSLNVSDDDDDEDSSD-----	248
Heterocephalus_glaber_2 (Naked_mole-rat)	ARSDSVYSQS-----LKSSLNVSDDDDDDSSA-----	239
Chinchilla_lanigera (Long-tailed_chinchilla)	PARSDSYSQS-----LKSPLNDSDDDDDDSSD-----	248
Cavia_porcellus (Guinea_pig)	PARSDSYSQS-----LKSPLNVSDDDDDDSSD-----	248
Ictidomys_tridecemlineatus (Thirteen-lined_ground_squirrel)	PTRSDSYSQS-----LKPLNDVSDDDDDDSSD-----	249
Heterocephalus_glaber (Naked_mole-rat)	ARSDSIYSQS-----LKSSLNVSDDDDDEDSSD-----	235
Rattus_norvegicus (Brown_rat)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Clethrionomys_glaberrimus (Vole)	PARSDSYSQS-----LKPLNDVSDDDDDDSSD-----	249
Cricetulus_griseus (Chinese_hamster)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Cercopithecus_atys (Sooty_mangabey)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Cebus_imitator (White-faced_capuchin)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Macaca_nemestrina (Southern_pig-tailed_macaque)	PARSDSYSQS-----LKSPLNMSDDDDDDSSD-----	249
Nomascus_leucogenys (Northern_white-cheeked_gibbon)	PARSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Capra_aegagrus (Goat)	PARSDSYSQS-----LQPLNDVSDDDDDDSSD-----	249
Sorex_araneus (Shrews)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Mus_spretus (Algerian_mouse)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Mus_caroli (Ryukyu_mouse)	PTRSDSYSQS-----LKSPLNDSDDDDDDSSD-----	249
Eptatretus_burgeri (Inshore_hagfish)	-----TSRRGSDGPVPCGGL--DSSDEDSSDGGEEIGSSLPGYTTDFYS-----	266

Panthera_tigris (Tiger)	PTRSDSYSQS-----LKSPNDVS	DDDDDDSSD	249
Danio_reio (Zebrafish)	PRSDS-YSRQ----GSDFGSNNIS	DDDDDDSSD	247
Cyprinodon_variegatus (Sheepshead_minnow)	PRSDS-ITR----PGANFNNTLS	DEDEDDSSD	245
Amphilophus_citrinellus (Midas_cichlid)	QHSdT-ITR----PGSKFNSNLS	DDDDDDSSD	246
Oryzias_dancena (Indian_medaka)	PRSDS-NNW----GESRYNNNHL	DEDEDDSSD	281
Stegastes_partitus (Bicolor_damselfish)	PRSDS-ISR-----SKFNSNLS	DEDEDDSSD	244
Amphiprion_percula (Orange_clownfish)	PRSDS-ISR-----PGSKFNSNLS	DEDEDDSSD	246
Fundulus_heteroclitus (Mummichog)	PNADS-LSR----PGLNFNNTL	DDDDDDSSD	244
Maylandia_zebra (Zebra_mbuna)	RSDSI-TRP-----GSKFHSNLS	DDDDDDSSD	245
Astatotilapia_calliptera (Eastern_happy)	RSDSI-TRP-----GSKFHSNLS	DDDDDDSSD	245
Oryzias_latipes (Japanese_rice_fish)	PCSDS-NSW----SESRYNNNHL	DEDEDDSSD	246
Amphiprion_ocellaris (Clownfish)	PRSDS-ISR-----PGSKFNSNLS	DEDEDDSSD	246
Xiphophorus_maculatus (Southern_platyfish)	RQSES-MSR----SGANFNNTL	DDDDDDSSD	244
Neolamprologus_brichardi (Lyretail_cichlid)	RSDSI-TRP-----GSKFHSNLS	DDDDDDSSD	245
Scophthalmus_maximus (Turbot)	VRSDS-FGR----MGSKFNN--LS	DDDEDDSSD	244
Pundamilia_nyererei (Makobe_Island_cichlid)	RSDSI-TRP-----GSKFHSNLS	DDDDDDSSD	245
Vulpes_vulpes (Red_fox)	PARSDSYSQS-----LKSPNDVS	DDDDDDSSD	249
Gallus_gallus (Chicken)	STRSDSYSQS-----PKSSLNDAS	DDDDDESSD	249
Sphenodon_punctatus (Tuatara)	PTRSDSYSQS-----PKSPLNVS	DDDDDDSSD	249
Equus_asinus (Donkey)	PPRSDTYSQS-----LKSPLNVS	DDDDDDSSD	249
Notechis_scutatus (Tiger_snakes)	PTRSDSFSQS-----PKPPLNDIS	DDDDDDSSD	249
Phascolarctos_cinereus (koala)	PTRSDSYSQS-----PKSPLNVS	DEDEDDSSD	249
Bos_mutus (Wild_yak)	PARSDSYSQS-----LKPPLNVS	DDDDDDSSD	249
Anser_brachyrhynchus (Pink-footed_goose)	STRSDSYSQS-----PKSSLNDAS	DDDDDESSD	249
Mus_spicilegus (Steppe_mouse)	PARSDSYSQS-----LKSPLNDS	DDDDDDSSD	249
Neovison_vison (American_mink)	PTRSDSYSQS-----LKSPLNVS	DDDDDDSSD	249
Chelonoidis_abingdonii (Abingdon_island_giant_tortoise)	PTRSDSYSQS-----PKSPLNVS	DDDDDDSSD	249
Peromyscus_maniculatus (Northern_American_deer_mouse)	PTRSDSYSQS-----LKSPLNVS	DDDDDDSSD	249
Parus_major (Great_tit)	SSRSDSYSQS-----PKSSLNDVS	DDDDDESSD	249
Crocodylus_porosus (Australian_saltwater_crocodile)	PTRSDSYSQS-----PKSSLNDIS	DDDDDDSSD	250
Coturnix_japonica (Japanese_quail)	STRSDSYSQS-----PKSSLNDAS	DDDDDESSD	249
Bos_taurus (Cattle)	PARSDSYSQS-----LKPPLNVS	DDDDDDSSD	249
Electrophorus_electricus (Electric_eel)	PRSNS-YSRQ---PCS---TNVS	DDDEDDSSD	244
Callorhynchus_milii (Elephant_shark)	NRSEF-YHGA-----LQSPGNLS	DEDEDDSSD	248
Caenorhabditis_elegans (Roundworm)	-----KTGNRLHEDSSSDSE	EVNGSGRSSNESRPTFYREDVQQPAT	266
Bos_taurus (Hybrid_cattle)	PARSDSYSQS-----LKPPLNVS	DDDDDDSSD	249
Aquila_chrysaetos (Golden_eagle)	STRSDSYSQS-----PKSSLNDVS	DDDDDESSD	249
Taeniopygia_guttata (Zebra_finch)	STRSDSYSQS-----PKSSLNDVS	DDDDDESSD	249
Strigops_habroptilus (Kakapo)	STRSDSYSQS-----PKSSLNDVS	DDDDDESSD	249
Jaculus_orientalis (Egyptian_jerboa)	TRSHS-LSLKSP		183
Prolemur_simus (Greater_bamboo_lemur)	PTRSDSYSQS-----LKSPLNVS	DDDDDDSSD	250
Serinus_canaria (Common_canary)	STRSDSYSQS-----PKSSLNDVS	DDDDDESSD	249
Gorilla_gorilla (Western_lowland_gorilla)	PARSDSYSQS-----LKSPLNDS	DDDDDDSSD	249
Hippocampus_comes (Tiger_tail_seahorse)	---DT-VCG-----RAGDFRVS	DDDDDDSSD	242
Propithecus_coquereli (Coquerel's_sifaka)	PTRSDSYSQS-----LKSPLNVS	DDDDDDSSD	249
Poecilia_latipinna (Sailfin_molly)	PRSES-MSR----PGANFNNTLS	DDDDDDSSD	245
Astyanax_mexicanus (Mexican_tetra)	VRSNS-YSRT---PTSKFLTNNVS	DDDEDDSSD	248
Aotus_nancymae_1 (Ma's_night_monkey)	PTRSDSYSQS-----LKSPLNDS	DDDDDDSSD	249
Poecilia_reticulata (Guppy)	PRSES-MSR----PGANFNNTLS	DDDDDDSSD	245
Pygocentrus_nattereri (Red-bellied_piranha)	VRSNS-YSLL---PPSCKFGSNVS	DEDEDDSSD	248
Anas_platyrhynchos (Common_mallard)	SARPSGSSNR-----GIWRVEM-		237

Labris_bergylta (Ballan wrasse)	IRSDS-ISR----PGSKFNSSNMSDDDEDDSSD-----	338
Aotus_nancymae_2 (Ma's night monkey)	PTRSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Spalax_galili (Upper Galilee Mountains blind mole-rat)	PARSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Chrysemys_picta (Western painted turtle)	PTRSDSYSQS-----PKSPINDVSDDDDDDDSSD-----	249
Astatotilapia_burtoni (Burton's mouthbrooder)	PQDCL-YS-----VILIQSEP-----	232
Pan_troglodytes (Chimpanzee)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Bison_bison (American bison)	PARSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Saimiri_sciureus (Squirrel monkeys)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Ictalurus_punctatus (Channel catfish)	PRSNS-YSRT-----NNISEDEDEDSSD-----	241
Papio_anubis (Olive baboon)	PARSDSYSQS-----LKSSLNDMSDDDDDDSSD-----	249
Seriola_lalandi (Yellowtail amberjack)	PRSDS-ISR----PGSKFN--NLSDDDEDSSD-----	244
Mesocricetus_auratus (Golden hamster)	PARSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Ursus_maritimus (Polar bear)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Seriola_dumerili (Greater amberjack)	PRSDS-ISR----PGSKFN--NLSDDDEDSSD-----	244
Marmota_marmota (Alpine marmot)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Rhinopithecus_roxellana (Golden snub-nosed monkey)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Paramormyrops_batesii (Paramormyrops)	ARSDS-YSLS---S-NKFCGNNMSDDEDEDSSD-----	252
Rhinopithecus_bieti (Black snub-nosed monkey)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Microcebus_murinus (Gray mouse lemur)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Panthera_pardus (Leopard)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Hucho_hucho_1 (Huchen)	PRSDS-YSRS-----VSKFNNVSDDEDEDSSD-----	248
Geospiza_fortis (Medium ground finch)	STRSDSYSQS-----PKSSLNDVSDDDDEEDSSD-----	249
Hucho_hucho_2 (Huchen)	PRSDS-YSRS-----GSKFNNVSDDEDEDSSD-----	253
Ursus_americanus (American black bear)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Symphurus_thermophilus (Tonguefish)	PRSDS-IGR---PGLKFGNNTLDDDDDDSSD-----	243
Octodon_degus_1 (Common degu)	PAWSDSYSQS-----VKSPINDVSDDEEDSSD-----	248
Dipodomys_ordii (Ord's kangaroo rat)	PTRSDSYSQS-----LKSPINDGSDDDDDDDSSD-----	249
Mandrillus_leucophaeus (Drill)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Octodon_degus_2 (Common degu)	ARSDS-YSQS-----LKSPINDVSDDEEDDNEKN-----	234
Kryptolebias_marmoratus (Mangrove rivulus)	PRSDS-IT----LGPNFNNNTLSDDDDDDSSD-----	245
Acanthochromis_polyacanthus (Spiny chromis)	PRSDS-ISR----PGSKFN--NLSDDDEDSSD-----	244
Pan_paniscus (Bonobo)	PARSDSYSQS-----LKSPINDMSDDDDDDSSD-----	249
Sinocyclocheilus_grahami_1 (Golden-line barbel)	SHSDS-YSHP-----EISSNNISDDDDDDSSD-----	245
Lates_calcarifer (Barramundi)	PRSDS-MSR----LGSKFNSNNLSDDDEDSSD-----	246
Sinocyclocheilus_grahami_2 (Golden-line barbel)	SHSDS-YSR-----SEFSSNNISDDDDDDSSD-----	245
Carlito_syrichta (Philippine tarsier)	PTRSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Canis_lupus (Dingo)	PARSDSYSQS-----LKSPINDVSDDDDDDDSSD-----	249
Cyclopterus_lumpus (Lumpfish)	PRSDS-LSR----LGSKFNN--LSDDDEDSSD-----	244
Sander_lucioperca (Zander)	QRSDS-ISR----LGSKFNN--LSDDDDDDSSD-----	244
Nothobranchius_furzeri (Turquoise killifish)	PH-DS-ISR-----PTSNFNNNTLSDDDDDDSSD-----	245
Monodon_monoceros (Narwhal)	PTRSDSYSQS-----LKSTLNDVSDDDDDDDSSD-----	249
Cervus_elaphus_1 (Yarkand deer)	PARSDSYSQS-----LKPPINDVSDDDDDDDSSD-----	249
Cervus_elaphus_2 (Yarkand deer)	ARSDS-YSQS-----LKPPINDVSDDDSSD-----	233
Balaenoptera_musculus (Blue whale)	PTRSDSYSQS-----SKSPINDVSDDDDDDDSSD-----	249
Leptobrachium_leishanense (Leishan spiny toad)	GRSDS-LSSS---PK---FGHNLSNDDDDDSSD-----	247
Naja_naja (Indian cobra)	PTRSDSFSQS-----PKPPINDISDDDDDDSSD-----	249
Phocoena_sinus (Vaquita)	PTRSDSYSQS-----LKSTLNDVSDDDDDDDSSD-----	249
Sciurus_vulgaris_1 (Eurasian red squirrel)	PTRSDSYSQS-----SKSPINDVSDDDDDDDSSD-----	249
Oncorhynchus_kisutch (Coho salmon)	PHSDS-YSRS-----GSKFNNVSDDEDEDSSD-----	254
Sciurus_vulgaris_2 (Eurasian red squirrel)	PTRSDSYSQS-----SKSPINNVSDDDDDDSSD-----	248
Terrapene_carolina (Three-toed box turtle)	PTRSDSYSQS-----PKSPINDVSDDDDDDDSSD-----	249

Salmo_salar_1_(Atlantic_salmon)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	248
Catagonus_wagneri(Chacoan_peccary)	PTRSDSYSQS-----LKAPLNDVS	DDDDDDSSD	249
Pseudonaja_textilis(Eastern_brown_snake)	PTRSDSFSQS-----PKPPLNDIS	DDDDDDSSD	249
Tetraodontidae(Fugu)	PRSDS-LSR----PGSKFNTSNLS	DDDDDDSSD	246
Moschus_moschiferus(Siberian_musk_deer)	PARSDSYSQS-----LKPLNDVS	DDDDDDSSD	249
Equus_caballus(Horse)	PPRSDTYSQS-----LKSPLNDVS	DDDDDDSSD	249
Salmo_salar_2_(Atlantic_salmon)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	248
Larimichthys_crocea(Large_yellow_croaker)	PRSDS-ISR----PGSKFN--NLS	DDDEEDSSD	244
Cottoperca_gobio(Channel_bull_blenny)	PRSDS-ITR----LGSKFN--NLS	DDDEEDSSD	242
Xenopus_tropicalis(Western_clawed_frog)	SRSDS-FSHP---SK---SKNNLS	DDDDDESSD	248
Sus_scrofa(Pig)	PTRSDSYSQS-----LKSPLNDVS	DDDDDDSSD	249
Erpetoichthys_calabaricus(Reedfish)	TRSDS-YSRA-----SKFSTNNMS	DDDDDDSSD	249
Sparus_aurata(Gilt-head_bream)	PRSDS-ISR----PGSKFNSNNLS	DDDEEDSSD	246
Struthio_camelus(Ostrich)	STRSDSYSQS-----PKSPLNDVS	DDEDEEDSSD	249
Salmo_trutta_1_(Brown_trout)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	255
Panthera_leo(Lion)	PTRSDSYSQS-----LKSPLNDVS	DDDDDDSSD	249
Camelus_dromedarius(Arabian_camel)	PARSDSYSQS-----LKSPLNDVS	DDDDDDSSD	249
Denticeps_clupeoides(Denticle_herring)	PRSDS-YSRP----RSNFGSNNVS	EDDDDDSSD	247
Ornithorhynchus_anatinus(Platypus)	PTRSDSYSQS-----PKSPLNNTS	DDDDDDSSD	249
Macaca_mulatta(Macaque)	PARSDSYSQS-----LKSPLNDMS	DDDDDDSSD	249
Oreochromis_niloticus(Nile_tilapia)	ARSDS-ITR----GSKFHSNNLS	DDDDDDSSD	245
Monodelphis_domestica(Gray_short-tailed_opossums)	PTRSDSYSQS-----PKS-LNNVS	DDEDEEDSSD	543
Cyprinus_carpio_1_(Common_carp)	--SDS-YSH-----SEISGNNIS	DDDDDDSSD	237
Callithrix_jacchus(Common_marmoset)	PARSDSYSQS-----LKSPLNDMS	DDDEEDSSD	249
Cyprinus_carpio_2_(Common_carp)	ARSDS-YSR-----SEFSSNNIS	DDDDDDSSD	245
Scleropages_formosus(Asian_arowana)	PRSDS-YSRS---S-SRFPGSNV	EDEEEEDSSD	250
Oryzias_sinensis(Chinese_rice_fish)	PCSDS-NNW----SESRYNNHLS	DDEDEEDSSD	246
Clupea_harengus(Atlantic_herring)	GRPDP-YGRS-----PGNNVS	DDDEEDSSD	244
Gopherus_evgoodei(Goode's_thornscrub_tortoise)	PTRSDSYSQS-----PKSPLNDVS	DDDDDDSSD	249
Physeter_macrocephalus(Sperm_whale)	PARSDSYSRS-----LKSPLNDVS	DDDDDDSSD	249
Laticauda_laticaudata(blue-lipped_sea_krait)	PTRSDSFSQS-----PKPPLNDIS	DDDDDDSSD	249
Podarcis_muralis(Common_wall_lizard)	PTRSDSYSHP-----PKLPLNDMS	DDDDDDSSD	249
Delphinapterus_leucas(Beluga_whale)	PTRSDSYSQS-----LKSTLNDVS	DDDDDDSSD	249
Oncorhynchus_tshawytscha_1_(Chinook_salmon)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	307
Betta_splendens(Siamese_fighting_fish)	PRSEC-ISR----PGSKFNNDNL	DEEEEDSSD	277
Oncorhynchus_mykiss_1_(Rainbow_trout)	S-HVT-WSTY-----SFQYFR--	-----	235
Oncorhynchus_mykiss_2_(Rainbow_trout)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	248
Salmo_trutta_2_(Brown_trout)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	248
Dicentrarchus_labrax(European_bass)	PRSDS-IGR----PVSKFNSNNLS	DDDEEDSSD	246
Oryzias_javanicus(Javanese_Ricefish)	PRSDS-NNW----AESRYNNHLS	DDEDEEDSSD	246
Salmo_salar_3_(Atlantic_salmon)	L-----GKS-----NFFF--	-----	229
Myripristis_murdjan(Pinecone_soldierfish)	PRFDS-ISR----TGSKFNSNNVS	DDEDEEDSSD	248
Sarcophilus_harrisii(Tasmanian_devil)	PTRSDSYSQS-----TKSPLNNV	DDEDEEDSSD	249
Carassius_auratus_1_(Goldfish)	SRSDS-L-----LSSNNIS	DDDDDDSSD	241
Oncorhynchus_tshawytscha_2_(Chinook_salmon)	PRSDS-YSRS-----GSKFNNVS	DDEDEEDSSD	253
Carassius_auratus_2_(Goldfish)	--SGS-YTH-----LEISGNNIS	DDDDDDSSD	237
Mus_musculus(Mouse)	PTRSDSYSQS-----LKSPLNDAS	DDDDDDSSD	249
Gadus_morhua(Atlantic_cod)	QRADS-FGR-----QGFN-----LS	DDEDEEDSSD	243
Drosophila_melanogaster(Fruit_fly)	-GEDS-AAATGAASGNKLNLT-TA	DSSNDESDSETASPGGE-SHDEPRFYGDNSVLSAV	276
Ailuropoda_melanoleuca(Giant_panda)	PTRSDSHSQS-----LKSPLNDVS	DDDDDDSSD	249
Mastacembelus_armatus(Zig-zag_eel)	PRSDS-ISR----PGSKFHSNNLS	DDEDEEDSSD	246

Macaca\_fascicularis (Crab-eating\_macaque)  
Anabas\_testudineus (Climbing\_perch)  
Felis\_catus (Cat)

PARSDSYSQS-----LKSPLNDS	DDDDDDSSD-----	249
PRSDC-ISR-----SKFNSNNLS	DDEDEDSSD-----	244
PTRSDSYSQS-----LKSPLNDV	DDDDDDSSD-----	249