

Drosophila LLLTDQQ---ANSVLGALGLLRLLLPQLIRGYPGDSHEDSESLAGKKQQQQQTTSDCRQ 284
 Takifugu LLVPVDEEHHSHLILGVLLTLRYLMLPLLQQQVNTISLKGSGFVMOKE----ADVQPAPEQ 298
 Danio LVVPVDEEHHSHLILGVLLTLRYLMLPLIQQQTPSTSLKGSGFLVRKE----ADVTPAPEQ 298
 Bos LLVPVDEEHPTELLILGVLLALRYLVPLLQQQVKDTSKGSFGVTRKE----MEVSPSTEQ 339
 Homo LLVPVDEEHSTLLILGVLLTLRYLVPLLQQQVKDTSKGSFGVTRKE----MEVSPSAEQ 353
 Rattus LLVPMEEHDPTLLILGVLLTLRCLVPLLQQQVKDTSKGSFGVTRKE----MEVSPSAEQ 332
 Mus LLVPMEEHSTLLILGVLLTLRCLVPLLQQQVKDTSKGSFGVTRKE----MEVSPSTEQ 332
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Drosophila IIEIYDYCLHLLSTQHTANHAIINATLEVINILQAVDAASDGQCSQSLGQSLRQLLCNQ 344
 Takifugu LLOVYELTLHYTQH---WDHNVVTAALELLOQLRTPPPE-----LLHVLITAG 344
 Danio LIQVYELTLHYTQH---WDHNVVTALELLOQMFRTPPPE-----LLNVLITRG 344
 Bos LVQVYELTLHYTQH---QDHNVVTALELLOQLRTPPPE-----LLRVLTTAG 385
 Homo LVQVYELTLHHTQH---QDHNVVTALELLOQLRTPPPE-----LLQTLTAVG 399
 Rattus LVQVYELTLHHTQH---QDHNVVTALELLOQLRTPPPE-----LLQALTTPG 378
 Mus LVQVYELTLHHTQH---QDHNVVTALELLOQLRTPPPE-----LLQALTTPG 378
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Drosophila QLOHNEYLRKRKSLKNQIFQLKNYEVATSQHQLEDEDEDVDELVVGATAMQM--KKN 401
 Takifugu SIQHASFV-----RQDIERSRSGSILELIAGGGSTCSPLLHRK 383
 Danio KITHTSVF-----REEMESRARSISILELIAG-GSTCSPLLLRK 382
 Bos GVRQLAAS-----KDEPGGRSRSGSIVELIAGGGSSCSPVLSRK 424
 Homo GIGQLTAA-----KEESGGRSRSGSIVELIAGGGSSCSPVLSRK 438
 Rattus GLGQLTLV-----REEAGGRSRSGSIVELLAGGGSSCSPVLSRK 417
 Mus GLGQLTLV-----QEEARGRGRSGSIVELLAGGGSSCSPVLSRK 417
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Drosophila SNAKLQQAKCREQQQHQQQLEVDNSSLGINAGEDAPTEAPSS--VADEGGPEST-K 457
 Takifugu HRGKMLSGEE-DALEDDPEKT-DVTTGYFTAVGADN-----SSA 420
 Danio QKGKLLSGEE-EGLEDDPER-AEVTTGSFTASVGGDSSSEAP-SSSGVSSL----- 430
 Bos QKGKVLFGEE-APLEDDSEPRSEGSPPAFSASVKGEVGGELAAS-SGISTPGSASSAADS 482
 Homo QKGKVLGEE-EALEDDSESRSDVSSSALTASVKDEISGELAA-SSGVSTPG-----S 489
 Rattus QKGKVLGEE-EALEDDSESRSDVSSSFAAASVKSEIGGELAASSSGVSTPG-----S 469
 Mus QKGKVLGEE-EALEDDSESRSDVSSSFAAASVKSEIGGELAA-SSGVSTPG-----S 468
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Drosophila LR-CHIRNAARISSECVASDEDKQGQGHRRQRDEDGVVAEDDDDDDDDDDDMELLS 516
 Takifugu AQVDIITQQPRSSQHTIQPGDSVDLSASSEQGRGGASASD--TPESPNDDEEDMLRS 477
 Danio GTSDIITEQPRSSQHALQPGDSVDLSASEQGVGPD-----TPDEEDEDMLRS 479
 Bos VGHDIITEQPRSQH-TLQ-TDAVDLAACDLTS-----AATDGDEEDILSHS 526
 Homo AGHDIITEQPRSQH-TLQ-ADSVDLASCDLTS-----SATDGDEEDILSHS 533
 Rattus VGHDIITEQPRSQH-TLQ-ADSVDLSGCDLTS-----AATDGDEEDILSHS 513
 Mus VGHDIITEQPRSQH-TLQ-ADSVDLSGCDLTS-----AATDGDEEDILSHS 512
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Drosophila AECDDFTTSLSQLNEQQQALS AALKLPTTTAASSGGAA TSQDDKLI DV DADVGGLPKPQH 576
 Takifugu SSCGAN-----ITPETVE---DAT--PENPAQEGRPVGGSGAYDHS 513
 Danio SSGGAG-----LVSTSGD---LVT--DANQMS-----AGAVSS 507
 Bos SSQMSA-----VPS-----D--PAMD LN-----DGTQAS 548
 Homo SSQVSA-----VPS-----D--PAMD LN-----DGTQAS 555
 Rattus SSQFSA-----VPS-----D--PAMD LN-----DGTQAS 535
 Mus SSQFSA-----VPS-----D--PAMD LN-----DGTQAS 534

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Drosophila  SS---LQNLLAGSDDKSQLSDIDNESFN SIDFDAEIT IAGSK EQQQQHPPADDSV ESG 632
Takifugu    LPPSDSSQT TTEGPDSA-----VTPSDVAELVLDGSESQYSG----- 550
Danio       SPPSESSQT TTEGPDSA-----VTPSDCAELVLDGSESQYSG----- 544
Bos         SPIDSSQT TTEGPDSA-----VTPSDSSEIVLDGTD SQYPG----- 585
Homo        SPIDSSQT TTEGPDSA-----VTPSDSSEIVLDGTDN QYLG----- 592
Rattus      SPIDSSQT TTEGPDSA-----VTPSDSSEIVLDGAD SQYLG----- 572
Mus         SPIDSSQT TTEGPDSA-----VTPSDSSEIVLDGAD SQYLG----- 571
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Drosophila  DATAIGTFFNLLSHSNAASESVSKLFRQSSGSKSTPSK SASTPAPADKSDAISAA SLTL 692
Takifugu    --MQIGTLQ-----DEEDEGTATSSQEDPPDPFLRSAL-- 581
Danio       --MQIGTLQ-----DEEE-EGSAPPPDKPPEPFSQSAL-- 574
Bos         --MQVGQTQ-----DEDE-DATAVLPDEDAETFRNSSIDF 617
Homo        --LQIGQPQ-----DEDE-EATGILPDEASEAFRNSSM-- 622
Rattus      --VQIGQPQ-----EEDEEEAAGVLSGEVSDVFRNSSL-- 603
Mus         --MQIGQPQ-----EDDEEGAAGVLSGEVSDVFRNSSL-- 602
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Drosophila  SLTSLASSNLEPPERQPLIAETPTPVEDSCSITASHTASTALMMDAPAVEVAASKPETPQ 752
Takifugu    ---ALSKPH-----LF-ES---RGHNRQGS-DS-----SVDRFIPKDE-PP 613
Danio       ---ALSKPH-----LL-EG---KGHNRQSS-DS-----SVDRFIPKEE-VL 606
Bos         E--ALQQA H-----LL-KS---MGHCRQSS-DS-----SVDKFVSR EE-AA 650
Homo        ---ALQQA H-----LL-KN---MSHCRQPS-DS-----SVDKFVLRDE-AT 654
Rattus      ---ALQQA H-----LL-ER---MGHSRQPS-DS-----SVDKFVSKDE-VA 635
Mus         ---ALQQA H-----LL-ER---MGHSRQPS-DS-----SIDKYVTRDE-VA 634
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Drosophila  LRGTPNANPFLVENSPLRQT VVGRALITVKIGSIL--EQSLVYYTARLVAARFLLSGQAA 810
Takifugu    EP-EP-----DNKMSR-----IKGAIGHYTD RGAEPVVHCVRLLSASFLLTGQKN 657
Danio       EPAEL-----DNKPSR-----IKGDIGHYTD PKEEPLMHCVRLLAASFLLTGQRN 651
Bos         EPGDP-----ENKPCR-----VKGDIGQSTDEDSAPLVHCVRLLSASFLLTGEKN 695
Homo        EPGDQ-----ENKPCR-----IKGDIGQSTDDDSAPLVHCVRLLSASFLLTG GKN 699
Rattus      EAGDP-----ESKPCR-----IKGDIGQPNDDDSAPLVHCVRLLSASFLLTGEKK 680
Mus         EASDP-----ESKPCR-----IKGDIGQPNDDDSAPLVHCVRLLSASFLLTGEKK 679
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Drosophila  GLQPD SISRVSIKSLSLAVIAQCVR LAPKILQLSLEISEQELQLLEEATSQIGSGDSTQV 870
Takifugu    GLTPDRDVRVSVKALAVSCV GAAAALHPEAFFNSLYLEPLDG----- 699
Danio       GLVPDNEVRVSVKALAVSCV GAAAALLPEAFFNLLYLQPLDG----- 693
Bos         ALVPDRDVRVSVKALALSCIGAAVALHPESFFSKLYRAPLDT----- 737
Homo        VLVPDRDVRVSVKALALSCIGAAVALHPESFFSKLYKVPLDT----- 741
Rattus      ALVPDRDVRVSVKALALSCIGAAVALHPESFFSKLYKVPLST----- 722
Mus         ALVPDRDVRVSVKALALSCIGAAVALHPESFFSRLYKVPLNT----- 721
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Drosophila  SSPQSSDNSQVGGEKPPLDSSLVPTSL EENLLLLLDIKDDHFGPSTCPAYLQSATPTLSRS 930
Takifugu    ----- 699
Danio       ----- 693
Bos         ----- 737
Homo        ----- 741

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Rattus	-----	722
Mus	-----	721
Drosophila	ADASVLLLEGGTTSSRSAKKSEEMLSKSEIIIESSYRPTVAVEDVPPLSMPPRPPKRTKST	990
Takifugu	-----	699
Danio	-----	693
Bos	-----	737
Homo	-----	741
Rattus	-----	722
Mus	-----	721

Drosophila	RSRVGLGTSSTTESSSPQSRQKLSDILLFHDHCDPILRGGVQOVVGNFLQSSGAGLFLD	1050
Takifugu	-----LRAEEQQYISDVLGFIDHGDQPVRGATAILCAAIQAALSKMRYN	744
Danio	-----QOTEQQYISDILQYIEHGDHQIRGATAILCGALIQAIQLKTRYN	738
Bos	-----VEYPEEQYVSDVLNYVDHGDQPVRGATAILCGTLCISVLGRCRFH	782
Homo	-----TEYPEEQYVSDILNYIDHGDQPVRGATAILCGTLCISILSRRFH	786
Rattus	-----MESTEEQYVSDILNYIDHGDQPVRGATAILCGTLVYSILSRRLR	767
Mus	-----TESTEEQYVSDILNYIDHGDQPVRGATAILCGTLVYSILSRRLR	766
	..* :***:* : :* * :**.. : . :: :	

Drosophila	LQRGLGLQHLLAILLKGFEDIHTVVIQALNAFDKIFPNVVKYLTEPPCHYHAHQOQQO	1110
Takifugu	IHSWL-----ASVQSK-----	755
Danio	TETWL-----SQIQSV-----	749
Bos	VAGWM-----GAVRAR-----	793
Homo	VGDWM-----GTIRTL-----	797
Rattus	VGDWL-----GTIRAL-----	778
Mus	VGDWL-----GNIRTL-----	777
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Drosophila	QQKEQQQQEQDNQKLEQDLQRHSSGQQKRSQAQTFGQQTFAKDQDNALSSQRQQQRRPN	1170
Takifugu	-----TGN--PLSLVDLVP LL-----QKALKDE	776
Danio	-----TGS--SVTLENFVPLL-----QRS LKDE	770
Bos	-----TGN--TFSLADCIP LL-----QKTLKDE	814
Homo	-----TGN--TFSLADCIP LL-----RKTLKDE	818
Rattus	-----TGN--TFSLVDCIP LL-----QKTLKDE	799
Mus	-----TGN--TFSLVDCIP LL-----QKTLKDE	798
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Drosophila	DAGTCANSSATDNDELLAALLNDFQLQSTGMRQQPKNNSTDTGQSGNEPDLEPNPNAAVE	1230
Takifugu	SSVTCKMACSAVR-----HCIM	793
Danio	SSVTCKMACAAVR-----HCIM	787
Bos	SSVTCKLACAAVR-----LCVM	831
Homo	SSVTCKLACTAVR-----NCVM	835
Rattus	SSVTCKLACTAVR-----HCVL	816
Mus	SSVTCKLACTAVR-----HCVL	815
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Drosophila	PFCVFAIS--PKLLLSKLR LCHHNKYWLQNKYAEVISNLNYVLLRSYYANFRCAIDNKN	1288
Takifugu	SLCGSTLSELGLRLVVDL FALKDSSYWLVRTELLETLAEMDFRLVNFLE RKS----EALH	849
Danio	ALCNGSLSELGLQLLIDL LTLKNSYWLVRTELLETLAEIDFRLISFLERKT----EKLH	843

Bos	SLCSSSYSAWGLQLITNLLALRSSSYWLVRTLELTVAEIDFRLVSFLEAKA----	ESLH	887
Homo	SLCSSSYSELGLQLIIDVLTLRNSSYWLVRTLELTLAEIDFRLVSFLEAKA----	ENLH	891
Rattus	SLCSSSYDLGLQLLIDMLPLKNSSYWLVRTLELTLAEIDFRLVSFLEAKA----	ESLH	872
Mus	SLCSSSYDLGLQLLIDMLPLKNSSYWLVRTLELTLAEIDFRLVSFLEAKA----	ESLH	871
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Drosophila	SGARKQDSKWPPMDASSVCHSVRDAEGEDIVCTYEAFQFLAELLHLLGDDDDARVREHAACC		1348
Takifugu	KGE---HHY-----TGRLRLQERVLNDVVIQLLGDDDDPRVRHVAASA		888
Danio	KGE---HHY-----TGLLRLQERVLNDVVLYLLGDEDPRVRHVAANT		882
Bos	RGA---HHY-----TGLLKLQERVLNSVVIHLLGDEDPRVRHVAAS		926
Homo	RGA---HHY-----TGLLKLQERVLNNVVIHLLGDEDPRVRHVAAS		930
Rattus	RGA---HHY-----TGFLKLQERVLNNVVIYLLGDEDPRVRHVAATT		911
Mus	RGA---HHY-----TGFLKLQERVLNNVVIYLLGDEDPRVRHVAATS		910
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Drosophila	LCRFIMQTARQDPSQDQAGGGGGDDIEGNGNVN-----ETQQ-TNFNLL---WDFFDY		1399
Takifugu	VSRLVSRLLFFD---CDQGGADPVVAIARDQSSVYLQLLMHETQPPSOLTVSTITRTYRGF		945
Danio	IGRLVPRLLFFD---CDQGGTDPVVAIARDQSSVHLQLLMHETQPPSQFTVSTITRTYRGF		939
Bos	LMRLVPKLFYK---CDQGGADPVVAIARDQSSVYLQLLMHETQPPSHFSVSAVTRIYRGY		983
Homo	LIRLVPKLFYK---CDQGGADPVVAIARDQSSVYLQLLMHETQPPSHFSVSTITRIYRGY		987
Rattus	LTRLVPKLFYK---CDQGGADPVVAIARDQSSVYLQLLMHETQPPSHFSVSTITRIYRGY		968
Mus	LTRLVPKLFYK---CDQGGADPVVAIARDQSSVYLQLLMHETQPPSHFSVSTITRIYRGY		967
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Drosophila	RIFGSM-SVTLRNL-FRASSTIVPPLAELDALATSNSAPSYDPTGSTSGSSTSTSASSGG		1457
Takifugu	NLSNNVADVTVENNLSRVVTAVSHA-----F-----TSSTS RALTFGC		983
Danio	NLCQSAPDVTVENNLSRVITAI SHA-----L-----TSSTS RAMTFGC		977
Bos	NLLPSITDVTLENNLSRVIAAVSHE-----L-----ITSTTRALTFGC		1021
Homo	NLLPSITDVTMENNLSRVIAAVSHE-----L-----ITSTTRALTFGC		1025
Rattus	SLLPSVTDVTMENNLSRVVAAVSHE-----L-----ITSTTRALTFGC		1006
Mus	SLLPSITDVTMENNLSRVVAAVSHE-----L-----ITSTTRALTFGC		1005
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Drosophila	SAAVSAASAYFEASYGIGIA-----EGHVFALASASQRQIAQEEK		1498
Takifugu	CEALCLLAVHFPICWTWTGWHCGHISSQSSFSS--RVGRSRGRTL SVS QSGSTPASST--		1039
Danio	CEALCLLSSTFPVCNWSGTGWHCGFVSSSVFHLNRSSQYRSRGRSFSLSQSGS-----		1029
Bos	CEALCLLSTAFPVCIWSLGWHCGVPPLS-----A-----		1050
Homo	CEALCLLSTAFPVCIWSLGWHCGVPPLS-----A-----		1054
Rattus	CEALCVLSAAFPVCTWSLGWHCGVPPLS-----A-----		1035
Mus	CEALCLLSAAFPVCTWSLGWHCGVPPLS-----A-----		1034
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Drosophila	VLAKVLYRLTNKMLTNDKNVQFGI IYALRLLL RHFNVDYQQVWLEFNFVE-----		1550
Takifugu	-----TSSAVDPERRTLVGTANMV-----LSLLSSAWFPLDLSAHQDALLLC		1082
Danio	-----NEEVRRSLTVGVASMV-----LSLISSAWFPLDLSAHQAALLLA		1068
Bos	-----SDESRSKCTVGMVSMI-----LTLSSAWFPLDLSAHQDALILA		1089
Homo	-----SDESRSKCTVGMATMI-----LTLSSAWFPLDLSAHQDALILA		1093
Rattus	-----SDESRSKCTVGMASMI-----LTLSSAWFPLDLSAHQDALILA		1074
Mus	-----SDESRSKCTVGMASMI-----LTLSSAWFPLDLSAHQDALILA		1073
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Drosophila	-----ICISYAYYNN A--TAA---DLGCQNDLIDVMGKLMAGAMLSGEPNTAHL D		1596

Takifugu GNLLAAVAPKCLRNPWAGEDDSSSSSTNTSGGTHKMEEPWAAL-----SDRAFVAMVE 1135
 Danio GNLLAAVAPKCMKSPWAGEESSPA-----SSKVEEPWPAL-----NDRSLVVMVE 1114
 Bos GNLLAASAPKSLRSSWASEDEASTA-----ATKQEEAWPAL-----GDRTLVPMVE 1135
 Homo GNLLAASAPKSLRSSWASEEENPA-----ATKQEEVWPAL-----GDRALVPMVE 1139
 Rattus GNLLAASAPKSLRSSWASEEEGSSA-----ATRQEEIWPAL-----GDRTLVPMVE 1120
 Mus GNLLAASAPKSLRSSWTSEEEANSA-----ATRQEEIWPAL-----GDRTLVPLVE 1119

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Drosophila FLLRHSVKMLNIYYHLVTNQRPPTAGSQ----- 1624
 Takifugu QLFSHLLKVLNICAHVLDLDDTPPGPPVKATLPSLTNTPSLSPIRRKGKDKDAVDSSSAPLS 1195
 Danio QLFSHLLKILNICAHVLDLDDTPPGPAVKASLPSLANTPSLSPIRRKGKDKMMEAGTTPMS 1174
 Bos QLFSHLLKVINICAHVLDLDDVAPGPAVKAALPSLTNPPSLSPIRRKGKKEPGEQASVPVS 1195
 Homo QLFSHLLKVINICAHVLDLDDVAPGPAVKAALPSLTNPPSLSPIRRKGKKEPGEQASVPLS 1199
 Rattus QLFSHLLKVINICAHVLDLDDVTPGPAVKAALPSLTNPPSLSPIRRKGKKEPGEQSTPMS 1180
 Mus QLFSHLLKVINICAHVLDLDDVTPGPAVKAALPSLTNPPSLSPIRRKGKKEPGEQASTPMS 1179

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Drosophila --SGSSSSKQPKSELFAREQPAATLQALGYFAGDYVYMKLYNILRGANDSYKITINQEAG 1682
 Takifugu PKKGNEANTG-RPTESTGSTAVHKSTTLGSFYHLPYLYKLYDVLKATHANFKVMDLHNS 1254
 Danio PKKGGFTNTG-RAADSTATAAVNKSTTLGSFYHLPYLYKLYDALRATHANYKVTLDLHNP 1233
 Bos PKKGSSEASPASRPPESTSGPVATNKSSSLGSFCHLPSYKLDHDLKATHANYKVTLDLQSS 1255
 Homo PKKGSSEASAASRQSDTSGPVTTKSSSLGSFYHLPYLYKLDHDLKATHANYKVTLDLQNS 1259
 Rattus PKKGGFASTASRQSDTSGPVTASKSSSLGSFYHLPYLYRLHDLKATHANYKVTLDLQNS 1240
 Mus PKKVGESASAASRQSDTSGPVTASKSSSLGSFYHLPYLYKLDHDLKATHANYKVTLDLQNS 1239

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Drosophila SL-LICLLKTCLHAVSLCLEGMASAPPELKLIEILHYLTRLINYPAEVCVACLRQLLK 1741
 Takifugu QEKFGSFLRAALDVLSQLLELA--TLNDINKVEEILGYLKSCFSREPTMATVCVQQLLK 1312
 Danio NEKFGGFLRSALDVLSQLLELA--TLHDIGKVEEILGYLKSCFSREPTMATVCVQQLLK 1291
 Bos GEKFGGFLRSALDVLSQLLELA--TLQDIGKVEEILGYLKSCFSREPTMATVCVQQLLK 1313
 Homo TEKFGGFLRSALDVLSQLLELA--TLQDIGKVEEILGYLKSCFSREPTMATVCVQQLLK 1317
 Rattus TEKFGGFLRSALDVLSQLLELA--TLQDIGKVEEVLGYLKSCFSREPTMATVCVQQLLK 1298
 Mus TEKFGGFLRSALDVLSQLLELA--TLQDIGKVEEVLGYLKSCFSREPTMATVCVQQLLK 1297

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Drosophila YLFAQNYASQVRLQ--PSAIGGNGSEIG-----HHAAFMRPYFAAKGRGHGASSTL 1790
 Takifugu TLFGTNLSAQYEGFLSGPSRSQKALRLGSSSLRPGLYHYCFMAPYTHFTQALADA---- 1368
 Danio ALFGTNSAQYEGASSNPCRQKALRLGSSSVRPGLYHYCFMAPYTHFTQALADA---- 1347
 Bos TLFGTNLSAQDGLSSSHASKSQGRAQLGSSSVRPGLYHYCFMAPYTHFTQALADA---- 1369
 Homo TLFGTNLSAQFDGLSSNPSKSQGRAQLGSSSVRPGLYHYCFMAPYTHFTQALADA---- 1373
 Rattus TLFGTNLSAQFDGLSSNPSKSQGRAQLGSSSVRPGLYHYCFMAPYTHFTQALADA---- 1354
 Mus TLFGTNLSAQFDGLSSNPSKSQGRAQLGSSSVRPGLYHYCFMAPYTHFTQALADA---- 1353

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Drosophila LPTINSKPAVAVGSQRGAPTARQPIDA-GP--LQDMGMLFVHGLQPP--TPPAGDCV 1843
 Takifugu -----SLRNMVQ-AEHEQDTSQWFDVMQKTSNQLRSNIANAARHRGDKNAIH 1414
 Danio -----SLRNMVQ-AEQEQDASQWFDVMQKVSQQLRSSITNVTNRHRGDKNAIH 1393
 Bos -----SLRNAAQ-AEQDQDTAGWFDVLOKVSTQLKTNLTSVTKNRADKNAIH 1415
 Homo -----SLRNMVQ-AEQENDTSQWFDVLOKVSTQLKTNLTSVTKNRADKNAIH 1419
 Rattus -----SLRNMVQ-ADQEHASQWFDVLOKVSAQLKTNLTSVTKNRADKNAIH 1400
 Mus -----SLRNMVQ-AEQERDASQWFDVLOKVSAQLKTNLTSVTKNRADKNAIH 1399

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Drosophila RLIKLFEPMVIYCLTLFMKSNA-LVQAPILRLLSQLLDLNVYTSILDSKNVIFDQVLSNM 1902
 Takifugu NHIRLFEPLVIKALKQYTTSTSVLQROVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1474
 Danio NHIRLFEPLVIKALKQYTTSTSVLQROVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1453
 Bos NHIRLFEPLVIKALKQYTTTTSVQLQKQVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1475
 Homo NHIRLFEPLVIKALKQYTTTTCVQLQKQVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1479
 Rattus NHIRLFEPLVIKALKQYTTTTSVQLQKQVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1460
 Mus NHIRLFEPLVIKALKQYTTTTSVQLQKQVLDLLAQLVQLRVNYCLLSDQVFIGFVLKQF 1459
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Drosophila DLIEGGIDRNAFIMVPPMLRFLVQLT--HKSDRQLITIPKIIISITNLLANGSVRVVA-L 1959
 Takifugu EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIISIPKIIQLCDGIMASGRKAVTHAI 1534
 Danio EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIISIPKIIQLCDGIMASGRKAVTHAI 1513
 Bos EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIIGIPKIIQLCDGIMASGRKAVTHAI 1535
 Homo EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIIGIPKIIQLCDGIMASGRKAVTHAI 1539
 Rattus EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIIGIPKIIQLCDGIMASGRKAVTHAI 1520
 Mus EYIEVGQFRDSEAIIPNIFFFLVLLSYERYHSKQIIGIPKIIQLCDGIMASGRKAVTHAI 1519
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Drosophila LALKTLSYELFFMHSQLEALDTEGHNSGRDACQSPLSAAPTPEALREALLAQRRELDTOR 2019
 Takifugu PALQPIVHDLFVLRGSN-----KADAGKELETQK 1563
 Danio PALQPIVHDLFVLRGSN-----KADAGKELETQK 1542
 Bos PALQPIVHDLFVLRGTN-----KADAGKELETQK 1564
 Homo PALQPIVHDLFVLRGTN-----KADAGKELETQK 1568
 Rattus PALQPIVHDLFVLRGTN-----KADAGKELETQK 1549
 Mus PALQPIVHDLFVLRGTN-----KADAGKELETQK 1548
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Drosophila EVVLGMLKFIARPSQOVLALLLLFERSVQQLDTPPYR--SAQDADAVYGTLCRGLCSR 2077
 Takifugu EVVVSMLLRLVQYHQV---LEMFILVLQOCHKENEDKWKRLSRQIADVILP---MIAKQ 1616
 Danio EVVVSMLLRLIQHHQV---LEMFILVLQOCHKENEDKWKRLSRQVADIILP---MIGKQ 1595
 Bos EVVVSMLLRLIQYHQV---LEMFITLVLQOCHKESDRWKRLSRQVADVILP---MLAKQ 1617
 Homo EVVVSMLLRLIQYHQV---LEMFILVLQOCHKENEDKWKRLSRQIADIILP---MLAKQ 1621
 Rattus EVVVSMLLRLIQYHQV---LEMFILVLQOCHKENEDKWKRLSRQVADIILP---MLAKQ 1602
 Mus EVVVSMLLRLIQYHQV---LEMFILVLQOCHKENEDKWKRLSRQVADIILP---MLAKQ 1601
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Drosophila QWRLHNAAGDLRLLLESCFRNNGNHVLADSKRFLQLLQLFIEQG-VGNF-----GDLAL 2128
 Takifugu QMHLDSPEALGVLNLTLEFETVAPSSLRPVDMLL--KSMFPTPVTMASVATVQLWVSGILAV 1674
 Danio QMHLDSHEALGVLNLTLEFESVAPSSLRPVDMLL--KSMFITPSTLASVGTVQLWVSGILAI 1653
 Bos QMHIDSHEALGVLNLTLEFELAPSSLRPVDMLL--RSMFVTPDTLAAVSTVQLWVSGILAI 1675
 Homo QMHIDSHEALGVLNLTLEFELAPSSLRPVDMLL--RSMFVTPNTMASVSTVQLWISGILAI 1679
 Rattus QMHIDSHEALGVLNLTLEFELAPSSLRPVDMLL--RSMFITPSTMASVSTVQLWISGILAI 1660
 Mus QMHIDSHEALGVLNLTLEFELAPSSLRPVDMLL--RSMFITPSTMASVSTVQLWISGILAI 1659
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Drosophila AMVLSNVILKTEEIYLVNHI---KLYLKNNPTEARRLQALMPSSPSAAPHWQDEAPST 2184
 Takifugu LRVLVS---QSTEDIVLSRIHELSSLPHLLSCHTIKRLQPNLSPSDQAGD----- 1723
 Danio LRVLIS---QSTEDIILSRIQELSLSPYLLSCTPIRRLCDDVPPAPPE--TL----- 1700
 Bos LRVLIS---QSTEDIVLSRIQELSFSPYLVSCPTISRRLRDLGDSSTAL----- 1719
 Homo LRVLIS---QSTEDIVLSRIQELSFSPYLISCTVINRLRDLGDSSTL----- 1723
 Rattus LRVLIS---QSTEDIVLSRIQELSFSPYLISCPVINRLRDLGDSNPTL----- 1704

Mus	LRVLLIS---QSTEDIVLCRIQELSFSPHLLSCLPVINRLRGGGGNVTL----- *::* .**:* * . :* . . *	1703
Drosophila	SSAAAAAARAAAASFSAGRSS-ISEINYFAKVLCEKLLACLE---VLLGLEP-SSSSHAY	2238
Takifugu	-----GQONQEPNGEAKSLPEETFARFLIQLVGVLLDDISSRHVKVDITEQQHTFY	1775
Danio	-----PVAMEDANGETTFRPPEETFARFLLQLVGVLLDDIANKQVKVDMSEQQHTFY	1752
Bos	-----EEHTEGRQMKNLPEETFARFLLQLVGVLLLEDIVTKQLRVEVSEQQQTFY	1768
Homo	-----EEHSEGKQIKNLPEETFARFLLQLVGVLLLEDIVTKQLKQVEMSEQQHTFY	1772
Rattus	-----GERSEGKQVKNLPEDTFSRFLQLVGVLLLEDIVTKQLKQVDMSEQQHTFY	1753
Mus	-----GECSEGKQ-KSLPEDTFSRFLQLVGVLLLEDIVTKQLKQVDMSEQQHTFY . * . : *::* : : * : : : . . *	1751
Drosophila	CQLTGRFMDALLNVCCRSRHKDALQSVFRLVLAESE---FLCKYYSLLLMSAAGLVGSY-	2294
Takifugu	CQQLGTLMLLIHVFKSGMFRRIITVAASRLLKGESGSGHSGIEFYPLEGLNS--MVHCLI	1833
Danio	CQQLGTLMLLIHIFKSGMFRRIITAAAGKLLKAEGGE---GGDFYTLLEGLNS--LVLQLI	1807
Bos	CQELGTLMLLIHIFKSGTFRRIITAAASRLLR-DG-A---DGGFYGLESINA--WVRSMV	1821
Homo	CQELGTLMLLIHIFKSGMFRRIITAAATRLFRSDG-C---GGSFYTLDSLNL--RARSMI	1826
Rattus	CQELGTLMLLIHIFKSGMFRRIITAAATRLFTSDG-C---EGSFYTLDSLNA--RVRAMV	1807
Mus	CQELGTLMLLIHIFKSGMFRRIITAAATRLFTSDG-C---EGSFYTLLESLNA--RVRSMV ** * : : .*::: . : : : : * . : : : * * : : .	1805
Drosophila	--LLDAVLLACLRLVLAMRLEEPVALLEQAAQLPLKTNLQ-----	2332
Takifugu	TTHPSLVLLWCQVLLIIDYTN--YSWWEVHQTPKGHSLSCTKLLSPHSSGEGEEKP-ET	1890
Danio	TTHPSLVLLWCQVLLIINYTN--YTWWSEVHQTPRRHSLSSTKLLSPHSSGEEERPE--G	1863
Bos	PTHPALVLLWCQILLLVSHTD--YRWAAEVQOTPKRRSLSSTKSLSPETSGEDDPDVA	1879
Homo	TTHPALVLLWCQILLLVNHTD--YRWAAEVQOTPKRHSLSSTKLLSPQMSGEEEDSDLAA	1884
Rattus	PTHPALVLLWCQILLLINHTD--HRWAAEVQOTPKRHSLSCTKSLNPQISA-EEDSGSAA	1864
Mus	PTHPALVLLWCQILLLINHTD--HRWAAEVQOTPKRHSLSCTKSLNPQKSGEEEDSGSAA *** * *::: : : . * * . *	1863
Drosophila	--RALLREVCRASA---GCDWSAQVRRLEFGRYLNFLIADHLEFICELCQERPECGSLL	2387
Takifugu	RLAMINREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHVRDLIDLSHEPPVQDFIS	1947
Danio	KLTMCNREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHVSDLISLSHEPPVQDLIS	1920
Bos	KLGMCNREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHIQDLINLSHEPPVQDFIS	1936
Homo	KLGMCNREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHIQDLISLSHEPPVQDFIS	1941
Rattus	QLGMCNREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHIQDLISLSHEPPVQDFIS	1921
Mus	QLGMCNREIVRRGALILFCDYVC---QNLHDSEHLTWLIVNHIQDLISLSHEPPVQDFIS ** : * . * ** : . : . * . . . * . * : : : : * . * * . :	1920
Drosophila	QVALFRNAHRLSRQSVRIVLRLLRGLCE---PAERE-----ASGDVGSAD-AD	2430
Takifugu	AV-----HRNSAAS-GLFIQAIQSRCDNLNSPTMLKKTLOCLEGIHLSQSGSLLMLYVD	2000
Danio	AV-----HRNSAAS-GLFIQAIQSRCDNLCTPVMLKKTLOCLEGIHLSQSGALLMLYVD	1973
Bos	AI-----HRNSAAS-GLFIQAIQSRCDNLSTPTMLKKTLOCLEGIHLSQSGAVLMLYVD	1989
Homo	AV-----HRNSAAS-GLFIQAIQSRCDNLSTPTMLKKTLOCLEGIHLSQSGAVLTYVD	1994
Rattus	AI-----HRNSAAS-GLFIQAIQSRCDNLSTPTMLKKTLOCLEGIHLSQSGAVLTYVD	1974
Mus	AI-----HRNSAAS-GLFIQAIQSRCDNLSTPTMLKKTLOCLEGIHLSQSGAVLTYVD : ** * * : : : : * : * . : ** : . *	1973
Drosophila	PT-IQAMQLLSRLHQLYE-----GERSLQLPPIERMARRLS--AQSGQPARNVI	2475
Takifugu	KLLSTPFRVLARMVDTLACRRVEMLLAETLQNSVAQLPLEELHRIQEYLQTSGLAQRHQR	2060
Danio	KLLNTPFRVLARMVDTLACRRVEMLLAETLQNSIAQLPLEELDRIQQYLQTSGLAQRHQR	2033
Bos	KLLCTPFRVLARMVDTLACRRVEMLLAANLQSSTAQLPAEELIRIQEHLQSSGLAQRHQR	2049

Homo	RLLCTPFRVLARMVDILACRRVEMLLAANLQSSMAQLPMEELNRIQEYLOSSGLAQRHQR	2054
Rattus	RLLGTPFRALARMVDTLACRRVEMLLAANLQSSMAQLPEEELNRIQEHLQNTGLAQRHQR	2034
Mus	RLLGTPFRALARMVDTLACRRVEMLLAANLQSSMAQLPEEELNRIQEHLQNSGLAQRHQR	2033
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Drosophila	YERLVEG-DLAGGEDQDALRTLKLDLECRQDNETATPSRIIDESWLFAQLIKFATQHAD	2534
Takifugu	FYSLLDRFRATV-SDTSSP-STPVTSHPLDGDPPPAPELVIADKEWYVALVKSQCCLHGD	2118
Danio	FFSLLDRFRATVAEDTTSP-VAPI TTHPLDGDPPPPENVEPNKEWYVTLVKSQCCLRGE	2092
Bos	LYSLLDRRLRATAPGSHGP-TPPVTSHPLDGDGGLALEAVNPKDWYVQLVKAQCWTRSD	2108
Homo	LYSLLDRFRLSTMQDSLSP-SPPVSSHPLDGDGHVSLLETVSPDKDWYVHLVKSQCWTRSD	2113
Rattus	LYSLLDRFRLSTVQDSLSP-LPPVTSHPLDGDGHTSLETVNPDKDWYLQLVRSQCWTRSD	2093
Mus	LYSLLDRFRLSTVQDSLSP-LPPVTSHPLDGDGHTSLETVSPDKDWYLQLVRSQCWTRSD	2092
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Drosophila	APQQQKQLMLL-----LLEIQSEPKLQRL-----LRSLGTEHEAKLLRHAIAGSL	2579
Takifugu	VSLEETTELLTKLPPADLLSVMSCKEFNLSLLCPCLSLGVQRLLRGQGSLLLETALQVTL	2178
Danio	GALYETTELLTKLPQSDLNAIMTCKDFNLCLLASCLSVGVQRVCKDHGAVLFDTAQQVTF	2152
Bos	SALLEGAELVSRIPAGDLGAFMMHSEFNLSLLAPCLGLGMREISGGQESPLFEAARTATL	2168
Homo	SALLEGAELVNRIPAEDMNAFMMNSEFNLSLLAPCLSLGMSEISGGQKSALFEAAREVTL	2173
Rattus	SALLEGAELVNRIPAEDMSDFMMSSEFNLSLLAPCLSLGMSEIANGQKSPLFEAARRVTL	2153
Mus	SALLEGAELVNRIPAEDMNDFMMSSEFNLSLLAPCLSLGMSEIANGQKSPLFEAARGVIL	2152
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Drosophila	AAMMSAFRQKCIQHAPHINYMQPTPLARVSCALLMSRVASTEATKCRNPPTGEQLDVARA	2639
Takifugu	EQLAGATGLL---PVPHHSFIPTS---H---PQSHWK-----	2206
Danio	ERLAGVIELL---PSPHQPLLPSS---KV-CPDYWQ-----	2181
Bos	DRVTVVVQQQL---PAVHEAFQPFLL---PTQPSAYWS-----	2198
Homo	ARVSGTVQQQL---PAVHHVFQPEL-----PAEPAAWS-----	2203
Rattus	DRVTVVVQQQL---PAVHQVFQPFLL---PTEPTAYWS-----	2183
Mus	NRVTSVVQQQL---PAVHQVFQPFLL---PIEPTAYWN-----	2182
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Drosophila	VGALMACIRNAEQTALIYIDARLME-----KF--VVEHLLRREHLPQ-----	2679
Takifugu	-----QLAEVYGDPGFYSRVLSLCRALSQYLLTVKQLPSSLRIPSDKEHLITT	2254
Danio	-----KLNQVYGEPGFYQTVLSLCGVLSQYLLSLSKLPSSMHIPKDRETLITT	2229
Bos	-----KLDDLFGDAALYR TLTTLAQALAQYLLVFSKLPSHLHLPPEKERD TVK	2246
Homo	-----KLNDLFGDAALYQSLPTLARALAQYLVVVS KLP SHLHLPPEKEK DIVK	2251
Rattus	-----KLNDLFGDTTSYQSLTTLARALAQYLVVLSKVPAPLHLPPEKEGHTVK	2231
Mus	-----KLNDLLGDTTSYQSLTILARALAQYLVVLSKVPAPLHLPPEKEGHTVK	2230
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Drosophila	----LLAYLGWLAGAAKQILAMPTRQESEQDALGVLLATVNTLLQQPRVWRELNASSDPS	2735
Takifugu	FTCAATEV VVVWHLLQDQL-----PLSVDLQWALSCLCLALQQPCVWNKLS TPEYNT	2305
Danio	FSTLAI EVVVWRLLQDQL-----PLSVDQM SLSCLCLALQQPAVWTHFTSHSYLT	2280
Bos	FMVMTVEALSWHLIHSRV-----PLSLDLQAGLDCCCLALQLPGLWSLLAAPDMVT	2297
Homo	FVVATLEALSWHLIHEQI-----PLSLDLQAGLDCCCLALQLPGLWSVVSSTEFVT	2302
Rattus	FVVM TVEALSWHLIHEQI-----PLSLDLQAGLDCCCLALQVPGLWGVLSSPEYVT	2282
Mus	FVVM TVEALSWHLIHEQI-----PLSLDLQAGLDCCCLALQVPGLWGVLSSPEYVT	2281
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Drosophila	LRCELLDLLDSVARCILQ--DTIFYRRHRRDRN-K-----AKGPAPQAI FL----	2778
Takifugu	HTCSLIYCLHHIILAVAVSPGDQLLHPERKKT KALRHSDDDEDQVDSVHDNHTLEWQACEI	2365

Danio HTCSIIHCIQLLIHAVAVGPGDQFLRPERKISEQS-----EDQVDSSD--NOREWHCC EI 2333
 Bos HACSLIHCVRFILEAIVVQPGDQLLSPERRTSTPKAAR--EDSVSDTQNPQYITAACGM 2355
 Homo HACSLIYCVHFILEAVAVQPGEQLLSPERRTNTPKAISEEEEEVDPNTQNPKYITAAACEM 2362
 Rattus HTCSLIHCVRFILEAIAVQPGDQLLGPESRSHTPRAVRKE--EVDSDIQNLSHITSACEM 2340
 Mus HACSLIHCVRFILEAIAVQPGDQLLGPESRSHTPRAVRKE--EVDSDIQNLSHVTSACEM 2339
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Drosophila -AKLIETQIEIESLASGRVLAVGVEEARLQFAGQDLARFQVALSLVTSIGISLLRTHQFYA 2837
 Takifugu MAELVEGLQSVLSLGH-----HR-----NTAFPAF--LTPTLRNIIISLRLPLVNS 2410
 Danio MAELVEGLQTVLTLGH-----HK-----NKNIPAF--LTPTLRNVIIISLARLPLVNS 2378
 Bos VAEMVECLPSVLALGH-----KR-----NSRTPAF--LTPVLRNIVISLARLPLVNS 2400
 Homo VAEMVESLQSVLALGH-----KR-----NSGVPAF--LTPLLRNIIISLARLPLVNS 2407
 Rattus VADMVESLQSVLALGH-----KR-----NSTLPSF--LTAVLKNIVVSLARLPLVNS 2385
 Mus VADMVESLQSVLALGH-----KR-----NSTLPSF--LTAVLKNIVISLARLPLVNS 2384
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Drosophila YAVTPHELIQQPGDQQEQADGKLPISIPVDSLSVDVLRQFVKRLSIFGFTRQQFEFY 2897
 Takifugu HTRVPPPLVWKLGWSPQGGFEGTTLPEIPVDFLQEKDVFREFLYRINTLGWSNRTOFEET 2470
 Danio YTRIPPLVWKLGWSPKLSGFEFTALPEIPVEFLQEKDVFREFLYRINTLGWSSRTOFEET 2438
 Bos YMRVPPPLVWKLGWSPKPGGDFGTVPFEIPVEFLQEKDVFREFIYRINTLGWTSRTOFEET 2460
 Homo YTRVPPPLVWKLGWSPKPGGDFGTAFPEIPVEFLQEKDVFKEFIYRINTLGWTSRTOFEET 2467
 Rattus YTRVPPPLVWKLGWSPKPGGDFGTVPFEIPVEFLQEKDVFKEFIYRINTLGWTSRTOFEET 2445
 Mus YTRVPPPLVWKLGWSPKPGGDFGTVPFEIPVEFLQEKDVFKEFIYRINTLGWTSRTOFEET 2444
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Drosophila FMTCLLLINKL--Y-----DEHMVDQEQEQFQIKQVCLQAILLELLMTYKTFPIVGLANGQF 2950
 Takifugu WATLLGVLVTQPITMDQEEETQEQEEDLERTQLNVLAVQAITSVLVSAMTLPATAGNPAVSC 2530
 Danio WATLLGVLVTQPITMDQEEETQEQEEDLERTQINVLAVQAITSVLVSAMTLPATAGNPAVSC 2498
 Bos WATLLGVLVTQPLMMEQEEES--PPEEDVERTQIHVLAVQAITSVLVSAMTVPVAGNPAVSC 2519
 Homo WATLLGVLVTQPLVMEQEEES--PPEEDTERTQINVLAVQAITSVLVSAMTVPVAGNPAVSC 2526
 Rattus WATLLGVLVTQPLVMEQEEES--PPEEDTERTQIHVLAVQAITSVLVSAMAVPVAGNPAVSC 2504
 Mus WATLLGVLVTQPLVMEQEEES--PPEEDTERTQIHVLAVQAITSVLVSAMTVPVAGNPAVSC 2503
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Drosophila HHT-----TRWQRITCDSISLKKLHKVQLLVDAC----- 2979
 Takifugu LEQQPRNKSLKALETRFGRKLAV--IRGEVEREQALVSKRDNVHTYHPYHAWDPVPSLSA 2589
 Danio PEQQPRNKILKALDTRFGRKLSV--IRGMVEREQAMVSKRDNIATHFPYQAWDPVPSLSS 2557
 Bos LEQQPRNKPLKALDTRFGRKLSI--IRGIVEQEIQAMVSRRENAATHHLYQAWDPVPSLAP 2578
 Homo LEQQPRNKPLKALDTRFGRKLSI--IRGIVEQEIQAMVSKRENIATHHLYQAWDPVPSLSP 2585
 Rattus LEQQPRNKPLKALDTRFGRKLSM--IRGIVEQEIQEMVSQRENTATHHSHQAWDPVPSLLP 2563
 Mus LEQQPRNKPLKALDTRFGRKLSM--IRGIVEQEIQEMVSQRENTATHHSHQAWDPVPSLLP 2562
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Drosophila ----NVFYQPNLERQLAYDNVIGTRTFAPNQYDLNFSWAQMEDQAAAGVGVGVGLSGG 3035
 Takifugu ASPGTLISHKLLQLINTERELGNMDYKLGQVSIHVSVLGNNITPLREE-----EWGE 2642
 Danio STAGTLISHKLLQLINTEREMGNMDYKLGQVSIHVSVLGNNITPLREE-----EWGE 2610
 Bos ATTGALISHDKLLQLNPERELGMSYKLGQVSIHVSVLGNSITPLREE-----EWDE 2631
 Homo ATTGALISHKLLQLNPERELGMSYKLGQVSIHVSVLGNSITPLREE-----EWDE 2638
 Rattus ATTGALISHDKLLQLNPEREPGNMSYKLGQVSIHVSVLGNNITPLREE-----EWDE 2616
 Mus ATTGALISHDKLLQLNPEREPGNMSYKLGQVSIHVSVLGNNITPLREE-----EWDE 2615
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Drosophila  -----DDPEIIAQQNDKVDILLHCIKSSTRDAAWIYGQVLCQIIRDLVPPNEILTKVIKE 3428
Takifugu    SDPQVPDSESIIVAMERVSVLFDRIRKGLPSEARVVARILPQFLDDFFPPQDIMNKVIGE 3006
Danio       ADPTAPDSESVIVAMERVSVLFDRIRKGFSEARVVARILPQFLDDLFPLQDVMNKVIGE 2979
Bos         PSTAAPDSESVIVAMERVSVLFDRIRKGFPCSEARVVARVLPQFLDDFFPPQDVMNKVIGE 2992
Homo        PNPAAPDSESVIVAMERVSVLFDRIRKGFPCSEARVVARILPQFLDDFFPPQDIMNKVIGE 3000
Rattus      PSPATPDSESVIVAMERVSVLFDRIRKGFPCSEARVVARILPQFLDDFFPPQDVMNKVIGE 2978
Mus         PSPATPDSESVIVAMERVSVLFDRIRKGFPCSEARVVARILPQFLDDFFPPQDVMNKVIGE 2977

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Drosophila  FLAINHPHCDVIAMIVYQVFRSAIDSSYLQMLQDWLICITLPTFLD-QPEQQGVWGLSVIF 3487
Takifugu    FLSNQQPYPQFMATVVYKVFQTLHATGQSSMVRDWVLLSLSNFTQRTPVAMAMWSLSCFF 3066
Danio       FLSNQQPYPQFMATVVYKVFQTLHATGQSSMVRDWVLLSLSNFTQRTPVAMAMWSLSCFF 3039
Bos         FLSSQQPYPQFMATVVYQVFQTLHGAGQSPMVRDWVMLSLSNFTQRPVAMAMWSLSCFF 3052
Homo        FLSNQQPYPQFMATVVYKVFQTLHSTGQSSMVRDWVMLSLSNFTQRPVAMATWSLSCFF 3060
Rattus      FLSNQQPYPQFMATVVYKVFQTLHSAGQSSMVRDWVMLSLSNFTQRTPVAMAMWSLSCFL 3038
Mus         FLSNQQPYPQFMATVVYKVFQTLHSAGQSSMVRDWVMLSLSNFTQRTPVAMAMWSLSCFL 3037

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Drosophila  LSASINLHLIKLFPVLVIGASNSAAAATTATTATTEAAAPAMARKLGQHEIALFVTA 3547
Takifugu    VSASTSQWISALLPHVISRM-----GSSDVVDVNLFCVLV 3100
Danio       VSASTSQWISALLPHVISRM-----GKSDTVDISLFCVLV 3073
Bos         VSASTSPWVSAILPHVSRM-----GKLEQVDVNLFCVLV 3086
Homo        VSASTSPWVAAILPHVISRM-----GKLEQVDVNLFCVLV 3094
Rattus      VSASTSPWVSAILPHVISRM-----GKLEQVDVNLFCVLV 3072
Mus         VSASTSPWVSAILPHVISRM-----GKLEQVDVNLFCVLV 3071

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Drosophila  AQDFHAKLSGEQ--RQRFREAFGSF-KRSQVYGRMLQCL-----3583
Takifugu    AMDFYRHQIDEELDRRAFQSVEFVVASPGSPYFQLLAQLQSIHQDKSL3148
Danio       AMDFYRHQIDEELDRRAFQSVEFVVASPGSPYQLLCCQLQSIHQDTS3121
Bos         ATDFYRHQIEEELDRRAFQSVEFVVAVPGNPYHRLLAQLRSVQKAAAC3134
Homo        ATDFYRHQIEEELDRRAFQSVEFVVAAPGSPYHRLLTCLRNHVHVTTC3142
Rattus      ATDFYRHQIEEELDRRAFQSVEFVVAAPGSPYHRLLAQLQNVHVTTC3120
Mus         ATDFYRHQIEEELDRRAFQSVEFVVAAPGSPYHRLLAQLQNVHVTTC3119

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PLEASE NOTE: Showing colors on large alignments is slow.