

Homology percent 71.6

The meaning of signs at the top of the alignment is following:
' ' - the average weight of column pair exchanges is less than weight matrix mean value
'.' - is less than mean value plus one SD
'+ ' - is less than mean value plus two SD
'* ' - is more than mean value plus two SD

Human (1) MAPPSEETPLI-PQRSCSLLSTEAGALHVLLPARGP-GPPQ---RLSFSF--GDHLAEDL
Chimpanze (1) MAPPSEETPLI-PQRSCSLLSTEAGALHVLLPARGP-GPPQ---RLSFSF--GDHLAEDL
Dog (1) MAPPSEETPLI-PQRSCSLLSTEAGALHVLLPARGP-GPPQ---RLSFSF--GDHSAEEL
Mouse (1) MAPPSEETPLI-PQRSCSLLSTEAGALHVLLPARGP-GPPQ---RLSFSF--GDYLAEDL
Rat (1) MAPPSEETPLI-PQRSCSLLSTEAGALHVLLPARGP-GPPQ---RLSFSF--GDYLAEDL
Chicken (1) MAPLGEETPLI-GERSCSLLSSEPGTLQVYLYHRGPHAPPDSaATLTF--GEYTAEEL
Zebrafish (1) MSE-EEEVPLMKSERAGSQRSSCDLQVHLY----YSPSLN-SETTFSIptGHVTAESV

Human (54) CVQAAKASGILPVYHSLFALATEDLSCWFPPSHIFSVEDASTQVLLYRIRFYFPNWFGL
Chimpanze (54) CVQAAKASGILPVYHSLFALATEDLSCWFPPSHIFSVEDASTQVLLYRIRFYFPNWFGL
Dog (54) CVAAKASGILPVYHSLFALATEDLSCWFPPSHIFSMEDSQTQVLYRIRFYFPNWFGL
Mouse (54) CVRAAKACGILPVYHSLFALATEDLSCWFPPSHIFCIEDVDTQVLYRIRFYFPNWFGL
Rat (54) CVRAAKACGILPVYHSLFALATEDLSCWFPPSHIFCIEDVDTQVLYRIRFYFPNWFGL
Chicken (58) CVHAAKACGVLPICHPLFALATEDLSCWYPPNHLFTVEDARSQVVYRIRFFFPNWCQ
Zebrafish (55) CVLAAKASGILPVYHSLFALASEDLVYVPPNHLFKSEE-PVKV-YRVRFFFSWFGQE

Human (114) --KCHRFGRLKDLASAILDLVLEHLFAQHRSDLVS--GRLPVGLSLKEQGECLSLAVLD
Chimpanze (114) --KCHRFGRLKDLASAILDLVLEHLFAQHRSDLVS--GRLPMGLSLKEQGECLSLAVLD
Dog (114) --KCHRFGRLKDLASAILDLVLEHLFAQHRNDLVS--GRFSVGLSLKEQDEYLSLAVLD
Mouse (114) --TCHRFGRLKDLASAILDLVLEHLFAQHRSDLVS--GRLPVGLSMKEQGEFLSLAVLD
Rat (114) --TCHRFGRLKDLASAILDLVLEHLFAQHRSDLVS--GRLPVGLSLKQGEFLSLAVLD
Chicken (118) --QVHRFQLPSDRPSPVLDYPIVLDYFAQSRSDVIA--GRMELALSLAGQECLSLAVLD
Zebrafish (113) srASYRFSLSKGRIFAFLDYAVIDYVFAQSRSDVFTGcGGISPALS--QQECLGLAVLD

Human (170) LARMAREQAQRPGELLKTVSYKACLPPSLRDLIQGLSFVTRRRIRRTVRRALRRVAACQA
Chimpanze (170) LARMAREQAQRPGELLKTVSYKACLPPSLRDLIQGLSFVTRRRIRRTVRRALRRVAACQA
Dog (170) LARMAREQAQRPGELLKTVSYKACLPPSLRDLIQGLSFVTRRRIRRMVRRALRRVTACQA
Mouse (170) LAQMAREQAQRPGELLKTVSYKACLPPSLRDLIQGLSFVTRRRIRRTVVVALRRVVACQA
Rat (170) LAQMARKQAQRPGELLKTVSYKACLPPSLRDLIQGLSFVTRRRIRRTVVQALRRVVACQA
Chicken (174) MLRIAKEKQSPKEVFCVSYKTCIPEQLRCQIQHSLTRKRIRRRVAQSLRRMGGCRV
Zebrafish (171) LWLAKERNQSLAEICNTTSYKSLPETHRQDIQRNRLARVQIRKTLKRFLLKGLKCSA

Human (230) DRHSLMAKYIMDLERLDPAGAAETFHVGLPGALGGHDGLGLL--RVAGDGGIAWTQGEQE
Chimpanze (230) DRHSLMAKYIMDLERLDPAGAAETFHVGLPGALGGHDGLGLL--RVAGDGGIAWTQGEQE
Dog (230) DRHSLMAKYIMDLERLDPARAVETFLVSPGAAGQDAQGLL--RVAGDRGIAWSGGQE
Mouse (230) DRYALMAKYILDLERLHPAATTEFRVGLPGA--QEPEGLL--RVAGDNGISWSSGDQE
Rat (230) DRYALMAKYILDLERLHPAATTEFRVGLPGA--QEPEGLL--RVAGDNGIAWSSKDQE
Chicken (234) DGCKLKYLLDLERLRCWAEESEFHAHGPDA-----DIA-IHVSTDSGVSWSVCGSE
Zebrafish (231) GERSLKLKYLMLKLEPDIYGESEFPLHSGWLEQSEQRVLaVKVSGGGIQTDRQ

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Human      ( 288) VLQPFCDPFEIVDISIKQAPRVGPAGEHRLVTVTRTDNQILEAEFPGLEALSFVALVDG
Chimpanze ( 288) VLQPFCDPFEIVDISIKQAPRVGPAGEHRLVTVTRTDNQILEAEFPGLEALSFVALVDG
Dog        ( 288) ALQPFCDPFEIVDISIKQAPRAGPAGEHRLVTVTKDKQILEAEFPGLEALSFVALVDG
Mouse     ( 285) LFQTFCDPFEIVDVSIKQAPRVGPAGEHRLVTITRMDGHILEAEFPGLEALSFVALVDG
Rat       ( 285) LFQTFCDPFEIVDVSIKQAPRVGPAGEHRLVTITRMDGHILEAEFPGLEALSFVALVDG
Chicken   ( 286) SRQHFCDFPDIDAVSIKQASRDGGFVNRNIVTLTKTDNRVLEVEFPTLREALSFVALVDG
Zebrafish ( 291) EWQTFCDPFPQIIDISIKRLCQEQMPLFGRVVTLTRQDDQCEAEFQTLTDALS FVSLVDG

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Human      ( 348) YFRLTDSQHFFCKEVAPPRLLEEVAEQCHGPITLDFAINKLTGGSRPGSYVLRSPQD
Chimpanze ( 348) YFRLTDSQHFFCKEVAPPRLLEEVAEQCHGPITLDFAINKLTGGSHPGSYVLRSPQD
Dog        ( 348) YFRLTDSRHFFCKEVAPPRLLEEVAEQCHGPITLDFAINKLTGGSLPGSYVLRSPQD
Mouse     ( 345) YFRLICDSRHFFCKEVAPPRLEEEAEELCHGPITLDFAIHKLKAAGSLPGTYILRRSPQD
Rat       ( 345) YFRLICDSRHFFCKEVAPPRLEEEAEELCHGPITLDFAIHKLKAAGSLPGSYILRRSPQD
Chicken   ( 346) YYRLTADAHYFCKEVAPPRLEDMENQCHGPISSEFAVRKLAAGSHPGLYVLRSPQD
Zebrafish ( 351) YFRLTDSSTHYFCAEVAPPSLELDIQNYCHGPITSEFAVHKLKAAGKNGMFLLRHSPKE

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Human      ( 408) FDSFLLTVCVQNPPLGPDYKGCILRRSPTGTFLVGLSRPHSSLRELLATCWDGGLHVDGV
Chimpanze ( 408) FDSFLLTVCVQPLGPDYKGCILRRSPTGTFLVGLSRPHSSLRELLATCWDGGLHVDGV
Dog        ( 408) FDSFLLTVCVQPLGPDYKGCILRCDPTGTFLVGLSRPHSSLRELLATCWDGGLHMDGA
Mouse     ( 405) YDSFLLTACVQPLGPDYKGCILRQDPGAFSLVGLSQPHRSLRELLAACWNSLQVVDGA
Rat       ( 405) YDSFLLTACVQPLGPDYKGCILRQDPGAFSLVGLSQLHRSLLQELLTACWNSLQVVDGT
Chicken   ( 406) FDSYLLTVAETRSQDYKRCILRRDEDSGFWLAGLARRFCSLQELLGTGCGGLQAEGA
Zebrafish ( 411) FDKYFLTVCIQPLGMDYKDCLEKNEK--FSLAGIHNSFINLKLQIDFYQLSTLYVSDI

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Human      ( 468) AVTLTSCCIPRPEKSNLIVVQRGHSPTSSLVQPQ--SQYQLSQTFFHKIPADSLEWHEN
Chimpanze ( 468) AVTLTSCCIPRPEKSNLIVVQRGHSPTSSLVQPQ--SQYQLSQTFFHKIPADSLEWHEN
Dog        ( 468) ANLTSCCIPRPEKSNLIVVRRGCNPPTSSPVQPQ--SQYQLSQTFFHKIPADSLEWHEN
Mouse     ( 465) ALNLTSCCIPRPEKSNLIVVRRGCTPAPAGCSPSCCA--LTQLSFHTIPTDLEWHEN
Rat       ( 465) ALNLTSCCIPRPEKSNLIVVRRGNPTPAPGHSPPSCCA--LTQLSFHTIPTDLEWHEN
Chicken   ( 466) HLRLDTCPCPLPREKSNLIVRSGCPRPPNSPPAPR---RSPNQMSFHKIDPESLIRGES
Zebrafish ( 469) PVTLGKCCPPRAKELTNMIIIRNS--SMTEIPSSPTLQRHKPSHMQFHMIKHEDLIWSES

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Human      ( 527) LGHGSFTKIYRCRHEVVDGEARKTEVLLKVMDAKHKNMESFLEAASLMSQVSYRHLVL
Chimpanze ( 527) LGHGSFTKIYRCRHEVVDGEARKTEVLLKVMDAKHKNMESFLEAASLMSQVSYRHLVL
Dog        ( 527) LGHGSFTKIYRCRHEVVDGEARETEVLLKVMDAKHKNMESFLEAASLMSQVSYRHLVL
Mouse     ( 523) LGHGSFTKIYRCRHEVVDGETHDSEVLLKVMDSRHRNCMESFLEAASLMSQVSYRHLVL
Rat       ( 523) LGHGSFTKIYRCRHEVVDGETHDSEVLLKVMDSRHQNCMESFLEAASLMSQVSYRHLVL
Chicken   ( 523) LGQGSFTHIYKGIKRDQKDEFFYQTPVVLKVMDSHRNCMESFLEAASLMSQVSHKHLVL
Zebrafish ( 527) LGQGSFTHIRGSKIDQRDGGTHSEVLLKVLNDAKHKNWESFLEAASLMSQISHRHLLL

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Human      ( 587) LHGVCM-AGDSTMVQEFVHLGALDYLKRL---RGHLVPASWKLQVVKLQAYALNYLEDKG
Chimpanze ( 587) LHGVCM-AGDSTMVQEFVHLGALDYLKRL---RGHLVPASWKLQVVKLQAYALNYLEDKG
Dog        ( 587) LHGVCM-AGDSTMVQEFVHLGALDYLKRL---SGHLVPASWKLQVVKLQAYALNYLEDKG
Mouse     ( 583) LHGVCM-AGDSTMVQEFVYLGALDYLKRL---RGHLVPASWKLQVVKLQAYALNYLEDKG
Rat       ( 583) LHGVCM-AGDSTMVQEFVYLGALDYLKRL---RGHLVPASWKLQVVKLQAYALNYLEDKG
Chicken   ( 583) LHGVSL-GKDSIMVQEFYRHGPLDYLKRNhEGK-VTTSWKLQVVKLQAYALNYLEDKG
Zebrafish ( 587) VYGISVhSKNMVQEFVHLGALDYLKRL---SMCVSVSWKLDVAKQLACALNFLEEK

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Human      ( 643) LPHGNVSAKRVLLAREG--ADGSPFFIKLSDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Chimpanze ( 643) LPHGNVSAKRVLLAREG--ADGSPFFIKLSDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Dog        ( 643) LLHGNVSAKRVLLAREG--ADGNLPPFFIKLSDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Mouse     ( 639) LPHGNVSAKRVLLAREG--GDGNPPFFIKLSDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Rat       ( 639) LPHGNVSAKRVLLAREG--VDGNPPFFIKLSDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Chicken   ( 641) ITHGNVSAKRVLLAREGdaASSPPFFIKLNDPGVSPAVLSLEMLTDRI PWVAPECLREAO
Zebrafish ( 643) IAHGNIACRNLVLLAREG----DSPPFFIKLSDPGVSMVLGKDVVLDRI PWVAPECLREAO

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Human      ( 701) TLSLEADKWFGATVWEVFSVGTMPISALDPKAKLQFYEDRQQLPAPKWTLELALIQQCM
Chimpanze ( 701) TLSLEADKWFGATVWEVFSVGTMPISALDPKAKLQFYEDRQQLPAPKWTLELALIQQCM
Dog        ( 701) TLGLEADKWFGATVWEVFSGIPMPISALDPKAKLQFYEDRQQLPAPKWTLELALIQQCM
Mouse     ( 697) TLGLEADKWFGATVWEVFSGGPAHITSLEPAKAKLQFYEDRQQLPAPKWTLELALIQQCM
Rat       ( 697) TLNLEADKWFGATVWEVFSGAPMHITSLEPAKAKLQFYEDRQQLPAPKWTLELALIQQCM
Chicken   ( 701) SLALPADKWFGATLWEIFSGGNMPSVLEPQKQFYEDRQQLPAPKWTLELALIQQCI
Zebrafish ( 697) EIELECDKWSFGTTLWEIFNGGEAPLQGLDLMKQFYENFNSLPTLEWTELAELISHCM

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Human      ( 761) AYEVPQRPSFRAVIRDLNLSLISDYELL--SDPTPGALAPRDGLWNGAQLYACQDPTIFE
Chimpanze ( 761) AYEVPQRPSFRAVIRDLNLSLISDYELL--SDPTPGALAPRDGLWNGAQLYACQDPTIFE
Dog        ( 761) AYEVPQRPSFRAVIRDLNLSLISDYELL--SDPTPGALAPRDGLWNGAQLYACQDPTIFE
Mouse     ( 757) AYDPGRRPSFRAVIRDLNLSLISDYELL--SDPTPGIPSPRDELGGGQYACQDPAIFE
Rat       ( 757) AYDPGRRPSFRAVIRDLNLSLISDYELL--SDPTPGIPSPRDELGGGQYACQDPAIFE
Chicken   ( 761) -YAPRRPCFRAVIRDLNLSLISDYELL--SELSPGDVTLRSCGWYEHVAAGHPAQFE
Zebrafish ( 757) QYQPELRPCRSVIRDLNLSLISDYELLhaTDLTP----ESNGFWKKLNIFFKQQEDVFE

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Human ( 819) ERHLKYISQLGKGNFGSVELCRYDPLGDNTGALVAVKQLQHSQDPQQRDFQREIQILKAL
Chimpanze ( 819) ERHLKYISQLGKGNFGSVELCRYDPLGDNTGALVAVKQLQHSQDPQQRDFQREIQILKAL
Dog ( 819) ERHLKYISQLGKGNFGSVELCRYDPLGDNTGALVAVKQLQHSQDPQQRDFQREIQILKAL
Mouse ( 815) ERHLKYISLLGKGNFGSVELCRYDPLGDNTGPLVAVKQLQHSQDPQQRDFQREIQILKAL
Rat ( 815) ERHLKYISLLGKGNFGSVELCRYDPLGDNTGPLVAVKQLQHSQDPQQRDFQREIQILKAL
Chicken ( 818) ERHLKYISLLGKGNFGSVELCRYDPLGDSTGELVAVKQLQDSAKELQDFEREIQILHSL
Zebrafish ( 813) ERYRLFISVLGKGNFGSVELCRYDPWGDNTGELVAVKQLQSNKQATMADFQREIQTISL

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Human ( 879) HSDFIVKYRGSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLDASRLLYSSQICKGME
Chimpanze ( 879) HSDFIVKYRGSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLDASRLLYSSQICKGME
Dog ( 879) HSDFIVKYRGSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLDAGRLLLYASQICKGME
Mouse ( 875) HSDFIVKYRGSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLHTRDLLFAWQICKGME
Rat ( 875) HCDFIVKYRGSYGPGRQSLRLVMEYLPSCGLRDFLQRHRARLHNDRLLLFAWQICKGME
Chicken ( 878) QHDFIVKYRGSYGRRRGLRLVMEYLPDGLRDYLQKNQHRLEHRTLLLYAWQICKGME
Zebrafish ( 873) HCDYIVKYKGYCSTGRSLTKLVMEYLYPGSLIGYMEKRRHNVGNRKLFFFASQICKGME

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Human ( 939) YLGSRRVCVHRDLAARNILVESEAHVKIADFGLAKLLPLDKDYVVVREPQSPIFWYAPES
Chimpanze ( 939) YLGSRRVCVHRDLAARNILVESEAHVKIADFGLAKLLPLDKDYVVVREPQSPIFWYAPES
Dog ( 939) YLGSRCVHRDLAARNILVESETHVKIADFGLAKLLPLDKDYVVVREPQSPIFWYAPES
Mouse ( 935) YLGARRVCVHRDLAARNILVESEAHVKIADFGLAKLLPLGKDYVVVREPQSPIFWYAPES
Rat ( 935) YLGARRVCVHRDLAARNILVESEAHVKIADFGLAKLLPLGKDYVVVREPQSPIFWYAPES
Chicken ( 938) YLGAQRCVHRDLASRNILVESETHVKIGDFGLAKLLPQDKDYVVVREPQSPVFWYAPES
Zebrafish ( 933) YLQSMRYVHRDLAARNILVADNLVKIADFGLTKIIPVDKEYYRVTQPGESPFWYAPES

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Human ( 999) LSDNIFSRQSDVWSFGVVLYELFTYCDKSCSPSAEFLRMMGCERDVPALC-RLLELLEEG
Chimpanze ( 999) LSDNIFSRQSDVWSFGVVLYELFTYCDKSCSPSAEFLRMMGCERDVPALC-RLLELLEEG
Dog ( 999) LSDNIFSRQSDVWSFGVVLYELFTYGNKSCSPSAEFLRMMGCERDVPALC-RLVELLAEG
Mouse ( 995) LSDNIFSRQSDVWSFGVVLYELFTYCDKSCSPSAEFLRMMGPREGPPLC-RLLELLEEG
Rat ( 995) LSDNIFSRQSDVWSFGVVLYELFTYSDKSCSPSTFLRMMGPREGSPIC-HLLELLEEG
Chicken ( 998) LADNVFSRASDVWSFGVVLYELFTYSNKSRSPSEFLHMMGPEKPAQIIC-HLLELLEKDS
Zebrafish ( 993) ISELKFSHKSVDVWSFGIVLHELFSYCDISQNPKKLCIQKIGRYVHSPSMAILLTLKNN

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Human ( 1058) QRLPAPPACPAEVHELMKLCWAPSPQDRPFSALGPQLD-MLWSGSRGCETHaftahpeg
Chimpanze ( 1058) QRLPAPPACPAEV-----SAAGLASVSQSVD---WAGVSGKPAGA-----
Dog ( 1058) QRLPAPPACPEVHELMKLCWAPSPKDRPTFSALGPQLD-ALWRGVA-----
Mouse ( 1054) RRLPPPTCPTTEVQELMQLCWSAPHDRPAFGLTSPQLD-ALWRGRPG-----
Rat ( 1054) RRLPPPTCPTTEVQELMQLCWSPNPQDRPAFDLTPQLD-ALWRGSPG-----
Chicken ( 1057) RRLPVPVPGCPMEVYAMMLSCWAFAPASARPTFTELAARVE-ALRDGRGTAHG-----
Zebrafish ( 1053) WRLPAPAQCPLKVHSHIMQCWEFNSENRPFSSSLKDLIENSLLDEREGCKG-----

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Human ( 1117) khhslsfs
Chimpanze ( 1095) -----
Dog ( 1104) -----
Mouse ( 1101) -----
Rat ( 1101) -----
Chicken ( 1107) -----
Zebrafish ( 1104) -----

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