

p53_Homo_Sapiens	-MEEPQSDPVSVEPPLSQETFFSDLWKLLPENNVLSPLPS----	QAMDDLML	45
p53_Afr_Green_Monk.	-MEEPQSDPSIEPPLSQETFFSDLWKLLPENNVLSPLPS----	QAVDDLML	45
p53_Mac_Fascicularis	-MEEPQSDPSIEPPLSQETFFSDLWKLLPENHVSPLPS----	QAVDDLML	45
p53_Mac_Fuscata	-MEEPQSDPSIEPPLSQETFFSDLWKLLPENNVLSPLPS----	QAVDDLML	45
p53_Mac_Mulatta	-MEEPQSDPSIEPPLSQETFFSDLWKLLPENNVLSPLPS----	QAVDDLML	45
p53_Guinea_pig	-MEEPQSDLSIEPPLSQETFFSDLWKLLPENNVLSDSL----	PPMDHLLL	45
p53_Bugs_Bunny	-MEESQSDLSLEPPLSQETFFSDLWKLLPENLLTSLN----	PFVDD-LL	44
p53_Gold_hamster	-MEEPQSDLSIELPLSQETFFSDLWKLLPPNNVLSLTP--SS-	DSIEELFL	46
p53_Chinese_hamster	-MEEPQSDLSIELPLSQETFFSDLWKLLPPNNVLSLTP--SS-	DSIEELFL	46
p53_Gerbil	-MEEPQSDLSIEPPLSQETFFSDLWKLLPPKNLLS-----	AL-EPMEDLLL	43
p53_Rat	-MEDSQSDMSIELPLSQETFFSCLWKLLPPDDILPTTATGSP-	NSMEDLFL	48
p53_Marmota_monax	-MEEAQSDLSIEPPLSQETFFSDLWNLLPENNVLSPLVLS----	PPMDDLML	45
p53_Spalax	-MEEQQSDLSIEPPLSQETFFSDLWKLLPQNNVLSLTP--SP-	NSMEDLLL	46
p53_Tree_shrew	-MEEPQSDPVSVEPPLSQETFFSDLWKLLPENNVLSPLPS----	QAMDDLML	45
p53_Mus_musculus	-MEESQSDLSIEPPLSQETFFSGLWKLLPPEDILP-----	SP-HCMDLLL	43
p53_Bos_indicus	-MEESQAEINVEPPLSQETFFSDLWNLLPENNVLSSELS----	APVDDLPL	45
p53_Bos_taurus	-MEESQAEINVEPPLSQETFFSDLWNLLPENNVLSSELS----	APVDDLPL	45
p53_Sheep	-MEESQAEINVEPPLSQETFFSDLWNLLPENNVLSSELS----	APVDDLPL	45
p53_Pig	-MEESQSELGVEPPLSQETFFSDLWKLLPENNVLSSELS----	LAAVNDLLL	46
p53_Canis_fam	-MEESQSELNIDPPLSQETFFSELWNLLPENNVLSSELC----	PAVDELLL	45
p53_Beluga_Whale	-MEESQAEINVEPPLSQETFFSDLWKLLPENNVLSSELS----	PAVDDLML	45
p53_Felix_Catus	-MQEPPLELTIEPPLSQETFFSELWNLLPENNVLSSELS----	SAMNELPL	45
p53_Galus	-MAEEMEPL-LEP---TEVFMDLWSMLP-----	YSMQQLPL	31
p53_X_Tropicalis	--MEPSSETGMEPPLSQETFFEDLWSLLP-----	DPLQTGTG	34
p53_X_laevis	--MEPSSETGMDPPLSQETFFEDLWSLLP-----	DPLQTVTC	34
p53_Danio_rerio	-----MAQN-DSQFAELWEK---NLIQPPGGGSCWDIINDE--		34
p53_Barbus	-----MAE---SQFAELWER---NLISTQEAG-TCWELIND---		30
p53_Xiph_maculatus	-MEEADLT----LPLSQDTFHDLWNN-----	VFLSTENESLP	32
p53_Xiph_hellerii	-MEEADLT----LPLSQDTFHDLWNN-----	VFLSTENESLA	32
p53_Tetraodon_miurus	-MEEENIS----LPLSQDTFQDLWNN-----	VSAPPISTIQTAALENEAW	40
p53_Platichthys_flesus	-MDEQGLDGMQILPGSQDSFSELWAS-----	VQTPSIATI	34
p53_Ictalurus	MEGNGERDTMMVEPPDSQFAELWLR---NLIVR---DNSLWKEEEE---		41
p53_rainbow_trout	---MADLAENVSLPLSQESFEDLWKMLN-NLVAVQPPETESVWGYDNFMM		46
p53_Homo_Sapiens	SPDDIEQWFTED-PGPDEAPRMPE-----	AAPRVAPAPAAPTPAAPAPA	88
p53_Afr_Green_Monk.	SPDDLAQWLTED-PGPDEAPRMSE-----	AAPHMPTPAAPTPAAPAPA	88
p53_Mac_Fascicularis	SPDDLAQWLTED-PGPDEAPRMSE-----	AAPPMAPTPAAPTPAAPAPA	88
p53_Mac_Fuscata	SPDDLAQWLTED-PGPDEAPRMSE-----	AAPPMAPTPAAPTPAAPAPA	88
p53_Mac_Mulatta	SPDDLAQWLTED-PGPDEAPRMSE-----	AAPPMAPTPAAPTPAAPAPA	88
p53_Guinea_pig	SPEEVASWLGE---NPDGDGHVSA-----	APVSEAPTSAGPALVAPAPA	86
p53_Bugs_Bunny	SAEDVANWLNE---DPEGLRVPA-----	APAPEAPAPAAPALAAPAPA	85
p53_Gold_hamster	S-ENVAGWLED---PGEALQGSAAAAAPAAPAAEDPVAETPAPVASAPA		91
p53_Chinese_hamster	S-ENVVTWLED---SGGALQG---VAAAAASTAEDPVTETPAPVASAPA		88
p53_Gerbil	P-QDVTSWLGD---ADEALPVCT-----	APAEQ-PAPEAPAPAAPAPP	81
p53_Rat	P-QDVAELLEG---PEEALQVS-----	APAAQEPGTEAPAPVAPASA	86
p53_Marmota_monax	SSEDVENWFK---GDEALQMSA-----	APAPKAPTAASTLAAPSPA	86
p53_Spalax	SPEDVANWLDD---PDEALQV-----	PAAI TGDVPTETSAPVAPPPA	86
p53_Tree_shrew	SPDDIEQWFTED-PGPDEAPRMPE-----	AAPPVAPAPAAPTPAAPAPA	88
p53_Mus_musculus	P-QDVEEFFEG---PSEALRVSG-----	APAAQDPVETPGPVAPAPA	82
p53_Bos_indicus	Y-TDVATWLDE---CPNEAPQMPE-----	PSA---PAAPPATPAPA	80
p53_Bos_taurus	Y-TDVATWLDE---CPNEAPQMPE-----	PSA---PAAPPATPAPA	80
p53_Sheep	YSEDVVITWLE---CPNEAPQMPE-----	P-----PAQAALAPA	76
p53_Pig	SP--VTNWLDE---NPDDASRVPA-----	PPA---ATAPAPAAPAPA	80
p53_Canis_fam	P-ESVNVWLDE---DSDDAPRMPA-----	TSA---PTAPGPAP---	76
p53_Beluga_Whale	SPEDVANWLDE---RPDEAPQMPE-----	PAAPTAAAPAPA	81
p53_Felix_Catus	S-EDVANWLDE---APDDASGMSA-----	VPA---PAAPAPATPAPA	80
p53_Galus	P-EDHSNQELSPLESPDP PPPP-----	PPPLPLAAAAPPPLNPPTP	73
p53_X_Tropicalis	QMFNFAEFSEYP-LAPDMTVLQEG-----	LMGNT	62
p53_X_laevis	RLDNLSEFPDYP-LAADMTVLQEG-----	LMGNA	62
p53_Danio_rerio	-EYLPGSFDPN---FFENVLEE-----	QPQPST---	58
p53_Barbus	-EYLPSSFDPN---IFDNVLTE-----	QPQPST---	54
p53_Xiph_maculatus	PPEGLLSQNMD---FWED-----	PETMQE--T	54
p53_Xiph_hellerii	PPEGLLSQNMD---FWED-----	PETMQE--T	54
p53_Tetraodon_miurus	PAERQMNMMCN---FMDSTFNEALF-----	NLLPEPPSR--D	72
p53_Platichthys_flesus	-AEFFDDHLGN---LLQNGFDMNLF-----	ELPPEMVAK--D	65

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p53_Ictalurus      ---IPDDLQEV---PCDVLLSDML-----QPQSSS---- 65
p53_rainbow_trout  EAPLQVEFDPS---LFEVVSATEP-----APQPSISTLD 76

p53_Homo_Sapiens   PSWPLSSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTYSPALNKMFCQLA 138
p53_Afr_Green_Monk. PSWPLSSSVPSQKTYHGSYGFRLGFLHSGTAKSVTCTYSPDLNKMFCQLA 138
p53_Mac_Fascicularis PSWPLSSSVPSQKTYHGSYGFRLGFLHSGTAKSVTCTYSPDLNKMFCQLA 138
p53_Mac_Fuscata     PSWPLSSSVPSQKTYHGSYGFRLGFLHSGTAKSVTCTYSPDLNKMFCQLA 138
p53_Mac_Mulatta     PSWPLSSSVPSQKTYHGSYGFRLGFLHSGTAKSVTCTYSPDLNKMFCQLA 138
p53_Guinea_pig      TSWPLSSSVPSHKPYRGSYGFVHFLKSGTAKSVTCTYSPCLNKLFCQLA 136
p53_Bugs_Bunny      TSWPLSSSVPSQKTYHGNYGFRGLGFLHSGTAKSVTCTYSPCLNKLFCQLA 135
p53_Gold_hamster    TPWPLSSSVPSYKTYQGDYGFRLGFLHSGTAKSVTCTYSPSLNKLFCQLA 141
p53_Chinese_hamster TPWPLSSSVPSYKTFQGDYGFRLGFLHSGTAKSVTCTYSPSLNKLFCQLA 138
p53_Gerbil          ASWPLSSFVPSHKTFQNGYGFRLGFLQSGTAKSVTCTYSPSLNKLFCQLA 131
p53_Rat             TPWPLSSSVPSQKTYQNGYGFHLGFLQSGTAKSVMTYSISLNKLFCQLA 136
p53_Marmota_monax   TSWPLSSSVPSQNTYPGVYGFRLGFLHSGTAKSVTCTYSPSLNKLFCQLA 136
p53_Spalax          TPWPLSSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTYSPPLNKLFCQLA 136
p53_Tree_shrew      PSWPLSSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTYSPDLNKLFCQLA 138
p53_Mus_musculus    TPWPLSSFVPSQKTYQNGYGFHLGFLQSGTAKSVMTYSPPLNKLFCQLA 132
p53_Bos_indicus     TSWPLSSFVPSQKTYPGNYGFRLGFLQSGTAKSVTCTYSPSLNKLFCQLA 130
p53_Bos_taurus      TSWPLSSFVPSQKTYPGNYGFRLGFLQSGTAKSVTCTYSPSLNKLFCQLA 130
p53_Sheep           TSWPLSSFVPSQKTYPGNYGFRLGFLHSGTAKSVTCTYSPSLNKLFCQLA 126
p53_Pig             TSWPLSSFVPSQKTYPGSYDFRLGFLHSGTAKSVTCTYSPALNKLFCQLA 130
p53_Canis_fam       -SWPLSSSVPSKTYPGTYGFRLGFLHSGTAKSVTWTYSPPLNKLFCQLA 125
p53_Beluga_Whale    TSWPLSSFVPSQKTYPGSYGFHLGFLHSGTAKSVTCTYSPALNKLFCQLA 131
p53_Felix_Catus     ISWPLSSFVPSQKTYPGAYGFHLGFLQSGTAKSVTCTYSPPLNKLFCQLA 130
p53_Galus           PRAAPSVPVSTEDYGGDFDFRVGFVEAGTAKSVTCTYSPVLNKVYCRLA 123
p53_X_Tropicalis    VPTVTSSAVPSTEDYAGSYGLKLEFQQNGTAKSVTCTYSTDLNKLFCQLA 112
p53_X_laevis        VPTVTSCAVPSTDDYAGKYGLQLDFQQNGTAKSVTCTYSPDLNKLFCQLA 112
p53_Danio_erio      --LPPTSTVPETSDYPGDHGFRLEFPQSGTAKSVTCTYSPDLNKLFCQLA 106
p53_Barbus          --SPPTASVPVATDYPGEHGFKLGFQSGTAKSVTCTYSSDLNKLFCQLA 102
p53_Xiph_maculatus  KNVPTAPTVPAINSYAGEHGFNLEFNDSGTAKSVTSTYSVKLGKLFQCLA 104
p53_Xiph_hellerii   KNVPTAPTVPAINSYAGEHGFNLEFNDSGTAKSVTSTYSVKLGKLFQCLA 104
p53_Tetraodon_mirus GANSSSPVVPVTTDYPGEYGFKLRFQKSGTAKSVTSTYSEILNKLYCQLA 122
p53_Platicthys_flesus SVTPPSSTVPVVTDYPGEYGFQLRQKSGTAKSVTSTFSELLKLYCQLA 115
p53_Ictalurus       --SPPTSTVPVTSYDYPGLLNFTLHFQESSGTAKSVTCTYSPDLNKLFCQLA 113
p53_rainbow_trout   TGSPPSTVPTTSDYPGALGFQLRFLQSSSTAKSVTCTYSPDLNKLFCQLA 126

p53_Homo_Sapiens   KTCPVQLWVDSTPPPGRVVRAMAIYKQSQHMTEVVRRCPHHERCSD---- 184
p53_Afr_Green_Monk. KTCPVQLWVDSTPPPGRVVRAMAIYKQSQHMTEVVRRCPHHERCSD---- 184
p53_Mac_Fascicularis KTCPVQLWVDSTPPPGRVVRAMAIYKQSQHMTEVVRRCPHHERCSD---- 184
p53_Mac_Fuscata     KTCPVQLWVDSTPPPGRVVRAMAIYKQSQHMTEVVRRCPHHERCSD---- 184
p53_Mac_Mulatta     KTCPVQLWVDSTPPPGRVVRAMAIYKQSQHMTEVVRRCPHHERCSD---- 184
p53_Guinea_pig      KTCPVQVWVESPPPGTRVRALAIYKKSQHMTEVVRRCPHHERCSD---- 182
p53_Bugs_Bunny      KTCPVQLWVDSTPPPGRVVRAMAIYKKSQHMTEVVRRCPHHERCSD---- 181
p53_Gold_hamster    KTCPVQLWVSSSTPPPGRVVRAMAIYKKLQYMTEVVRRCPHHERSSE---- 187
p53_Chinese_hamster KTCPVQLWVNSTPPPGRVVRAMAIYKKLQYMTEVVRRCPHHERSSE---- 184
p53_Gerbil          KTCPVQLWVSSAPPPTGRVVRAMAIYKNSQHMTEVVRRCPHHERCSENEAS 181
p53_Rat             KTCPVQLWVSTSTPPPGRVVRAMAIYKKSQHMTEVVRRCPHHERCSD---- 182
p53_Marmota_monax   KTCPVQLWVDSTPPPGRVVRAMAIYKKSQHMTEVVRRCPHHERCSD---- 182
p53_Spalax          KTCPVQLWVDSTPPPGRVVRAMAIYKKSQHMTEVVRRCPHHERCSD---- 182
p53_Tree_shrew      KTCPVQLWVDSAPPPTGRVVRAMAIYKQSQYVTEVVRRCPHHERCSD---- 184
p53_Mus_musculus    KTCPVQLWVVSATPPAGSRVVRAMAIYKKSQHMTEVVRRCPHHERCSD---- 175
p53_Bos_indicus     KTCPVQLWVDSPPPTGRVVRAMAIYKKLEHMTTEVVRRCPHHERSSDY--- 177
p53_Bos_taurus      KTCPVQLWVDSPPPTGRVVRAMAIYKKLEHMTTEVVRRCPHHERSSDY--- 177
p53_Sheep           KTCPVQLWVDSPPPTGRVVRAMAIYKKLEHMTTEVVRRCPHHERSSDY--- 173
p53_Pig             KTCPVQLWVSSPPPTGRVVRAMAIYKSEYMTEVVRRCPHHERSSDY--- 177
p53_Canis_fam       KTCPVQLWVSSPPPTNTCVRAMAIYKSEFVTEVVRRCPHHERCSDS--- 172
p53_Beluga_Whale    KTCPVQLWVSSPPPTGRVVRAMAIYKSEYMTEVVRRCPHHERCSDY--- 178
p53_Felix_Catus     KTCPVQLWVRSPPPTGTCVRAMAIYKSEFMTEVVRRCPHHERCPDS--- 177
p53_Galus           KPCPVQVRVGVAPPVSSSLRAVAVYKSEHVAEVVRRCPHHERCGGG--- 170
p53_X_Tropicalis    KTCPVQLWVRSPPPTGILRATAVYKSEHVAEVVRRCPHHERSVEP--- 159
p53_X_laevis        KTCPVQLWVRSPPPTGILRATAVYKSEHVAEVVRRCPHHERSVEP--- 159
p53_Danio_erio      KTCPVQMVVDVAPPVQGSVVRATAIYKSEHVAEVVRRCPHHERTPD--- 152
p53_Barbus          KTCPVQMVVNVAPPVQGSVIRATAIYKSEHVAEVVRRCPHHERTPD--- 148
p53_Xiph_maculatus  KTTPIGVLVKEEPPQGAIRATAVYKTEHVGEVVRRCPHHERTPD--- 146
p53_Xiph_hellerii   KTTPIGVLVKEEPPQGAIRATSVYKTEHVGEVVRRCPHHERTPD--- 146

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p53\_Tetraodon\_miurus KTSLVEVLLGKDPPMGAVLRATAIYKKTEHVAEVVRRCPHHQ----- 164  
 p53\_Platicthys\_flesus KTSPVEVLLSKEPPQGAVLRATAVYKKTEHVADVVRRCPHHQ----- 157  
 p53\_Ictalurus KTCPVLMAVSSSPPPGSVLRATAVYKRSEHVAEVVRRCPHHERSND---- 159  
 p53\_rainbow\_trout KTCPVQIVVDHPPPPGAVVRALAIYKKLSDVADVVRRCPHHQSTSE---- 172  
  
 p53\_Homo\_Sapiens -SDGLAPPQHLIRVEGNLRVEYLDDRNTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Afr\_Green\_Monk. -SDGLAPPQHLIRVEGNLRVEYSDDRNTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Mac\_Fascicularis -SDGLAPPQHLIRVEGNLRVEYSDDRNTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Mac\_Mulatta -SDGLAPPQHLIRVEGNLRVEYSDDRNTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Guinea\_pig -SDGLAPPQHLIRVEGNLHAEYVDDRTTFRHSVVVPYEPPEVGSDCTTIH 231  
 p53\_Bugs\_Bunny -SDGLAPPQHLIRVEGNLRAEYLDDRNTFRHSVVVPYEPPEVGSDCTTIH 230  
 p53\_Gold\_hamster -GDGLAPPQHLIRVEGNMHAEYLDDKQTFRHSVVVPYEPPEVGSDCTTIH 236  
 p53\_Chinese\_hamster -GDSLAPPQHLIRVEGNLHAEYLDDKQTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Gerbil DPRGRAPPQHLIRVEGNLHAEYVDDRQTFRHSVLVPYESPEVGSDCTTIH 231  
 p53\_Rat -GDGLAPPQHLIRVEGNPYAEYLDDRQTFRHSVVVPYEPPEVGSECTTIH 231  
 p53\_Marmota\_monax -SDGLAPPQHLIRVEGNLRAEYLDDRNTFRHSVVVPYEPPEVGSECTTIH 231  
 p53\_Spalax -SDGLAPPQHLIRVEGNLRAEYLDDKHTFRHSVVVPYEPPEVGSDCTTIH 231  
 p53\_Tree\_shrew -SDGLAPPQHLIRVEGNLHAEYSDDRNTFRHSVVVPYEPPEVGSDCTTIH 233  
 p53\_Mus\_musculus -GDGLAPPQHLIRVEGNLYPEYLEDRQTFRHSVVVPYEPPEAGSEYTTIH 224  
 p53\_Bos\_indicus -SDGLAPPQHLIRVEGNLRAEYLDDRNTFRHSVVVPYESPEIDSECTTIH 226  
 p53\_Bos\_taurus -SDGLAPPQHLIRVEGNLRAEYLDDRNTFRHSVVVPYESPEIDSECTTIH 226  
 p53\_Sheep -SDGLAPPQHLIRVEGNLRAEYFDDRNTFRHSVVVPYESPEIDSECTTIH 222  
 p53\_Pig -SDGLAPPQHLIRVEGNLRAEYLDDRNTFRHSVVVPYEPPEVGSDCTTIH 226  
 p53\_Canis\_fam

p53\_Xiph\_maculatus LSFMCNSSCMGGMNRRPILITILLETTEGEVLGRRCFEVRVCACPGDRDK 246  
 p53\_Xiph\_hellerii LSFMCNSSCMGGMNRRPILITILLETTEGEVLGRRCFEVRVCACPGDRDK 246  
 p53\_Tetraodon\_miurus LSFMCNSSCMGGMNRRPILITILLETTEQEGIVLGRRCFEVRVCACPGDRDK 264  
 p53\_Platicthys\_flesus LSFMCNSSCMGGMNRRQILITILLETTPDGLVLGRRCFEVRVCACPGDRDK 257  
 p53\_Ictalurus YNYMCNSSCMGGMNRRPILITITILETQDGHLLGRRTFEVRVCACPGDRDK 259  
 p53\_rainbow\_trout YNFMCNSSCMGGMNRRPILITITILETQEGQLLGRRSFEVRVCACPGDRDK 272  
  
 p53\_Homo\_Sapiens TEEENLRKKGEP---HHELPPGSTKRALPNNTS-SSPQPKKKP----- 322  
 p53\_Afr\_Green\_Monk. TEEENFRKKGEP---CHELPPGSTKRALPNNTS-SSPQPKKKP----- 322  
 p53\_Mac\_Fascicularis TEEENFRKKGEP---CHQLPPGSTKRALPNNTS-SSPQPKKKP----- 322  
 p53\_Mac\_Fuscata TEEENFRKKGEP---CHQLPPGSTKRALPNNTS-SSPQPKKKP----- 322  
 p53\_Mac\_Mulatta TEEENFRKKGEP---CHQLPPGSTKRALPNNTS-SSPQPKKKP----- 322  
 p53\_Guinea\_pig TEEENFRKKGGL---CEPTPGNIKRALPTSTS-SSPQPKKKP----- 320  
 p53\_Bugs\_Bunny TEEENFRKKGEP---CELPFGSSKRALPTTTTSSPQTKKKP----- 320  
 p53\_Gold\_hamster TEEKNFQKKGEP---CELPFKSAKRALPTNTS-SSPQPKRRK----- 325  
 p53\_Chinese\_hamster TEEKNFQKKGEP---CELPFKSAKRALPTNTS-SSPPPKKKT----- 322  
 p53\_Gerbil TEEENLRKKQ-R---CELPQGSKRALPTNTS-SSPQSKRKP----- 319  
 p53\_Rat TEEENFRKKEEH---CELPFGSAKRALPTSTS-SSPQPKKKP----- 320  
 p53\_Marmota\_monax TEEENFRKKGEP---CEPPPRSTKRALPNGTS-SSPQPKKKP----- 320  
 p53\_Spalax TEEENFRKKGEL---CELPFGSTKRALPTGTS-SSPQPKKKP----- 320  
 p53\_Tree\_shrew TEEENFRKKGES---CPKLPTGSIKRALPTGSS-SSPQPKKKP----- 322  
 p53\_Mus\_musculus TEEENFRKKEVL---CELPFGSAKRALPTCTS-ASPQPKKKP----- 313  
 p53\_Bos\_indicus TEEENLRKKQGS---CEPPPRSTKRALPTNTS-SSPQPKKKP----- 315  
 p53\_Bos\_taurus TEEENLRKKQGS---CEPPPRSTKRALPTNTS-SSPQPKKKP----- 315  
 p53\_Sheep TEEENFRKKQGS---CEPPPGSTKRALPSSTS-SSPQPKKKP----- 311  
 p53\_Pig TEEENFLKKQGS---CEPPPGSTKRALPTSTS-SSPVQKKKP----- 315  
 p53\_Canis\_fam TEEENFHKKGEP---CEPPPGSTKRALPPSTS-SSPQPKKKP----- 310  
 p53\_Beluga\_Whale TEEENFHKKQGS---CELPFGSAKRALPTGTS-SSPQPKKKP----- 316  
 p53\_Felix\_Catus TEEENFRKKGEP---CEPPPGSTKRALPPSTS-STPPQKKKP----- 315  
 p53\_Galus IEEENFRKRG-----GAGGVAKRAMPPTAEAPPKRVLN----- 305  
 p53\_X\_Tropicalis TEEDNCTKKRGL---KP-----NGKRELSHPPSSDPPLPKRRLV-----E 295  
 p53\_X\_laevis TEEDNYTKKRGL---KP-----SGKRELAHPPSSDPPLPKRRLV-----V 295  
 p53\_Danio\_rerio TEESNFRKDQET--KTMAKTTTGTKRSLVKESSEATLRPEGSKKAKGS-- 297  
 p53\_Barbus TEESNFRKDQET--KTLDKIPSANKRSLTKDSTSSVPRPEGSKKAKLSG- 294  
 p53\_Xiph\_maculatus TEEGNL-----EKS--GTKQTKRKSAPA---PDTSTAKKSKASSGE 284  
 p53\_Xiph\_hellerii TEEGNL-----EKS--GTKQTKRKSAPA---PDTSTAKKSKASSGE 284  
 p53\_Tetraodon\_miurus TEETNS-----TKMQNDAKDAKRKSVPT---PDSTTIKSKASSAE 304  
 p53\_Platicthys\_flesus TDEESS-----TKTPNGPKQTKRKRQAPSNSAPHTTTVMKSKSSSSAE 300  
 p53\_Ictalurus TEESNFRKQEP--KTSKTLT--KRSMKDPPS----HPEASKKSKNS-- 299  
 p53\_rainbow\_trout TEEINLKKQETTLETKTKPAQGIKRAMK-EASLPAPQPGASKKTKSSPA 321  
  
 p53\_Homo\_Sapiens -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSHLK- 370  
 p53\_Afr\_Green\_Monk. -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSHLK- 370  
 p53\_Mac\_Fascicularis -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSHLK- 370  
 p53\_Mac\_Fuscata -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSHLK- 370  
 p53\_Mac\_Mulatta -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSHLK- 370  
 p53\_Guinea\_pig -LDAEYFTLKIRGRNFEILREINEALEFKDAQTEKEPGESEPHSSYPK- 368  
 p53\_Bugs\_Bunny -LDGEYFILKIRGRERFEMFRELNEALELKDQAQKEPAGSRAHSSYLK- 368  
 p53\_Gold\_hamster -LDGEYFTLKIRGRERFEMFRELNEALELKDQAQKASEDSGAHSSYLK- 373  
 p53\_Chinese\_hamster -LDGEYFTLKIRGHERFEMFRELNEALELKDQAQKASEDNGAHSSYLK- 370  
 p53\_Gerbil -ADGEYFTLKIRGRERFEMFRELNEALELKDQAQAGESGDGRAQASCLK- 367  
 p53\_Rat -LDGEYFTLKIRGRERFEMFRELNEALELKDARAAEESGDSRAHSSYPK- 368  
 p53\_Marmota\_monax -LDGEYFTLKIRGRERFEMFRELNEALELKDQAQKEPGESEPHSSYLK- 368  
 p53\_Spalax -LDGEYFTLKIRGRERFEMFRELNEALELKDQAQKDSGESRAHSSYLK- 368  
 p53\_Tree\_shrew -LDEEYFTLQIRGRERFEMFRELNEALELKDAMAGKESAGSRAHSSHLK- 370  
 p53\_Mus\_musculus -LDGEYFTLKIRGRERFEMFRELNEALELKDHAHTEESGDSRAHSSYLK- 361  
 p53\_Bos\_indicus -LDGEYFTLQIRGFKRYEMFRELNDALELKDALDGREPGESEPHSSYLK- 363  
 p53\_Bos\_taurus -LDGEYFTLQIRGFKRYEMFRELNDALELKDALDGREPGESEPHSSYLK- 363  
 p53\_Sheep -LDGEYFTLQIRGRERFEMFRELNEALELMDQAQGREPGESEPHSSHLK- 359  
 p53\_Pig -LDGEYFTLQIRGRERFEMFRELNDALELKDQAQARESGENRAHSSHLK- 363  
 p53\_Canis\_fam -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQSGKEPAGSRAHSSHLK- 358  
 p53\_Beluga\_Whale -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQKEPGESEPHSSHLK- 364  
 p53\_Felix\_Catus -LDGEYFTLQIRGRERFEMFRELNEALELKDQAQSGKEPAGSRAHSSHLK- 363  
 p53\_Galus -PDNEIFYLQVRGRRRYEMLKEINEALQLAEGGSAPRPSKGR----RVK- 349  
 p53\_X\_Tropicalis EDDEETFTLLIKGRSRYEMIKKLNDALELQESLDQO-----KLSIKCRK- 339  
 p53\_X\_laevis DDDEEIFTLRIKGRSRYEMIKKLNDALELQESLDQO-----KVTIKCRK- 339



p53_Danio_rerio	SSDEEIFTLQVRGRERYEILKKLNDSLELSDVVPASDAEKYRQKFMTK--	345
p53_Barbus	SSDEEITYTLQVRGKERYEMLKKINDSLELSDVVPSEMDRYRQKLLTK--	342
p53_Xiph_maculatus	DEDKEIYTLQVRSIRGRNRYLWFKSLNDGLE-----LMDKTGPKIK--	322
p53_Xiph_hellerii	DEDKEIYTLQVRSIRGRNRYLWFKSLNDGLE-----LMDKTGPKIK--	322
p53_Tetraodon_miurus	EDNNEVYTLQIRGRKRYEMLKKINDGLD-----LLENKPKSKATHR--	345
p53_Platicthys_flesus	EEDKEVFTVLVKGREYELIKKINEAFEG-----AAEKEKAKNKVAVK--	343
p53_Ictalurus	SSDDEIYTLQVRGKERYEFLKKINDGLELSDVVPADQEKYRQKLLSKTC	349
p53_rainbow_trout	VSDDEIYTLQIRGKERYEMLKKFNDSLELSELVVPADADKYRQKCLTKRV	371
p53_Homo_Sapiens	----SKKGQSTSRHKKLMFKTE-GPDS	393
p53_Afr_Green_Monk.	----SKKGQSTSRHKKFMFKTE-GPDS	393
p53_Mac_Fascicularis	----SKKGQSTSRHKKFMFKTE-GPDS	393
p53_Mac_Fuscata	----SKKGQSTSRHKKFMFKTE-GPDS	393
p53_Mac_Mulatta	----SKKGQSTSRHKKFMFKTE-GPDS	393
p53_Guinea_pig	----SKKGQSTSCHKKLMFKRE-GLDS	391
p53_Bugs_Bunny	----AKKGQSTSRHKKPMFKRE-GPDS	391
p53_Gold_hamster	----SKKGQASRLKKLMIKRE-GPDS	396
p53_Chinese_hamster	----SKKGQASRLKKLMIKRE-GPDS	393
p53_Gerbil	----TKKDKSTSPRKNPMIKRE-EPDS	390
p53_Rat	----TKKGQSTSRHKKPMIKKV-GPDS	391
p53_Marmota_monax	----SKKGQSTSRHKKLIIFKRE-GPDS	391
p53_Spalax	----SKKGQSTSRHKKLMIKRE-GPDS	391
p53_Tree_shrew	----SKKGQSTSRHKKLMFKTE-GPDS	393
p53_Mus_musculus	----TKKGQSTSRHKKTMVKKV-GPDS	384
p53_Bos_indicus	----SKKRPSPSCHKKPKMLKRE-GPDS	386
p53_Bos_taurus	----SKKRPSPSCHKKPKMLKRE-GPDS	386
p53_Sheep	----SKKGPSPSCHKKPKMLKRE-GPDS	382
p53_Pig	----SKKGQSPSRHKKPMFKRE-GPDS	386
p53_Canis_fam	----AKKGQSTSRHKKLMFKRE-GLDS	381
p53_Beluga_Whale	----SKKGQSPSRHKKLMFKRE-GPDS	387
p53_Felix_Catus	----AKKGQSTSRHKKPKMLKRE-GLDS	386
p53_Galus	----VE-GPQPSCGKLLQK-----GSD	367
p53_X_Tropicalis	----CRDEIKPKKGKLLVKDE-LQDSE	362
p53_X_laevis	----CRDEIKPKKGKLLVKDE-QPDSE	362
p53_Danio_rerio	NKKENRESSEPKQGKLLMVKDEGRSDSD	373
p53_Barbus	GKKKDGQTPEPKRGKLLMVKDE-KSDSD	369
p53_Xiph_maculatus	-----QEIPAPSSGKRLKGG---SDSD	342
p53_Xiph_hellerii	-----QEIPAPSSGKRLKGG---SDSD	342
p53_Tetraodon_miurus	-----PDGPIPPSGKRLLRGE-KSDSD	367
p53_Platicthys_flesus	-----QELVPVSSGKRLVQGE-RSDSD	365
p53_Ictalurus	RKERDGAAGEPKRGKRLVKEE-KCSDSD	376
p53_rainbow_trout	AKRDFGVG--PKKRKLLVKEE-KSDSD	396