

*Amino acid sequence

** Promotif assigned hairpins

ECE patterns of 17 amino acids (patterns having no, single and double stroked represent predicted hairpin, non-hairpin and rejected by BhairPred)

Color coding:

α -helix

β -sheet

coil

>T0196

ILSKKPAGKVVVEEVVNIMGKDVIIIGTVESGMIGVGFVKVKGPSGIGGIVRIERNREKVEFAIAGDRIGISIEGKIGKVKKGD*

GKVVVEEVVNIMGKDVIIIGTVESGMIG** KVKGPSGIGGIVRIER**

IGGIVRIERNREKV**

~~VIIIGTVESGMIGVGFK#~~

~~GGIVRIERNREKVEFAI#~~

~~ISIEGKIGKVKKGD~~

~~VGFKVKGPSGIGGIVRI#~~

~~EKVEFAIAGDRIGISIE#~~

VLEIYQT*

~~VLE#~~

>T0197

SEVEIKFKIKLEDLHTLNTFNPEFVRYEEQEDVYFEVPRPKLLRIRGVHNLKKYYLTFKEILDENNEEFYEVFEFEIGDFEKAVE

EFVRYEEQEDVYFEVPRPKLLRIRGV KYLTFKEILDENNEEFYEVFEFEI

KLLRIRGVHNLKKYYLTFKEI

EFVRYEEQEDVYFEVP

QEDVYFEVPRPKLLRIR

VFKRLGFKIQATIKKKRWVYKLNVTLEVNRVEGIGDFVDIEVISDSPEEAKEKIWEVAKMLGLKEEDVEPRLYLELINEL
IQATIKKKRWVYKLNVTLEVNRV
VTLEVNRVEGIGDFVDIEVI
FKIQATIKKKRWVYKLN LEVNRVEGIGDFVDIEV
KKRWVYKLNVTLEVNR

>T0198

NRLLENEKVEEFKKGVLKAGWFIEKMFRNSISLVERNESLAREVIADDEEVVDQMEVEIQEKAMEVLGLFSPIGKPLLTVTAGI
RVAELIENIADKCHDIAKNVLELMEEPPLKPLEDIPAMANQTSEMLKFALRMFADVNVKESFEVCRMDSKVDDLYEKVREE
LLLYMMESPKYVKRALLLEIAGNIEIADYATNIVEVSVYMQGEAYKCYHDELLLFKK
YKCYHDELLL

No ECE pattern found

>T0199

KLNDRQRKVLYCIVREYIENKKPVSSQRVLEVSNIFFSSATIRNDMKKLEYLGYIYQPHTSAGRIPTDKGLRFYEEMLKISK
IYQPHTSAGRIP
ETSEADLAVETFKSMPLADPEKVLFLAGNLLARLTEGYVLIERPNTKILRVMLIPVSEDYLIFSILTEFGVSKVTPIKTQER
RVMLIPVSEDYLIFSILT
YLIFSILTEFGVSKVTPIK
YVLIERPNTKILRV LIFSILTEFGVSKVTPI
RVMLIPVSEDYLIFSIL
LNWEEIERQLNFLLRGRTVGEVLMGKIESLKSGFLRLIESLIGETVERYLDAGLENLLKDETLTLEDIRNLLLEVVDQKFLS
LVGEGITVRIGREIGRKKLEKFAVFSGKYFKGESPIGSVYLFTSKVTKYDRNHRVFEYILNRLSEYFTSTS
TVRIGREIGRKKLEKFAVFSGKYFK
FAVFSGKYFKGESPIGSVYLFTS
~~TVRIGREIGRKKLEKFAVFSGKY~~
AVFSGKYFKGESPIGSV

>T0200

MRVLFIGD VFGQP GRRVLQNHLP TIRPQ FDFVIVNMENSAGGF GMHRDAARGALEAGAGCLTLGNHAWHHKDIYPMLSED
 DIYPMLSED
 TYPIVRPLNYADPGTPGVGWRTFDVNGEKLTVVNLGRVFM EAVDNPFRTMDALLERDDLGTVFVDFHAEATSEKEAMGW
 TYPIVRPL WRTFDVNGEKLTVVNL VDFHAEATSEKEAMGW
~~IVRPLNYADPGTPGVGWRTFDV~~ KEAMGW
 GWRTFDVNGEKLTVVNL
 HLAGRVA AVIGTHTHVPTADTRILKGGTAYQT DAGFTGPHDSIIGSAIEGPLQRFLTERPHRYGV AEGRAELNGVALHFEGG
 HLAGRVA AVIG RILKGGTAYQ TGP HDSIIGSAIEGPLQRFLTERPHRYGV AEGRAELNGVALHFE
 AVIGTHTHVPTADTRIL AELNGVALHFEGG
 TADTRILKGGTAYQTDA NGVALHFEGG
 PHRYGV AEGRAELNGVA

KATAAERYRFIED
 KATAAERYRFI
 KATAAER

>T0201

MIKVTVTNSFFEVTGHAPDKTLCASV SLLTQH VANFLKAEKKAKIKKESGYLKVKFEELENCEVKVLAAMVRS LKELEQK
 IKVTVTNSFFEVT
 XMIKVTVTNSFFEVTGH AKIKKESGYLKVKF
 FPSQIRVEVIDNGS

>T0202

MRAAVVYKTDGHVKRIEEALKRLEVEVELFNQPS EELNFD FIVSVGGDG TILRILQK LKRCPPIFGINTGRVGLLTHAS PENF
 VELKKA VEKFEVERFPRVSCSAMPDVLALNEI AVL SRKPAK MIDVALRVDGVEVD RIRC DG FIVATQIGSTGYAFSAGGPV
 PRVSCSAMPDVLALNEI IDVALRVDGVEVD RIRC GFIVATQIGSTGYAFSAGGPV
 LNEI AVL SRKPAK MIDV GVEVD RIRC DG FIVATQ
 MIDVALRVDGVEVD RIR

VEPYLECFILIPAPFRFGWKPYVVSMERKIEVIAEKAIVVADGQKSVDFDGEITIEKSEFPAVFFKNEKRFRNLFGKVRSIG
VEPYLECFILIP I EVIAEKAIVVADGQKSVDFDGEITIEK
FILIPAPFRFGWKPYVV EKAIVVADGQKSVDFDGEITIEK
ILIPAPFRFGWKPYVV ADGQKSVDFDGEITIEK
GWKPYVVSMERKIEVIA EITIEKSEFPAVFFKNE

>T0203

RESPAEHGYMPAEWDSHAQTWIGWPERQDNWRHNALPAQRVFADVAKAISKFEPVTVCASPAQWENARKQLPED
IRVVEMSMNDSWFRDSGPTFIVRKR!NRNIAGIDWNFNWGGANDGCYNDWSHDLLVSRKILALERIPR
TFIVRKR*NRNIAGIDWN
~~IRVVEMSMNDSWFRDSGPTFIVRKR~~
PTFIVRKR*NRNIAGIDWN

FQHSMILEGGSIHVDGEGTCLVTEECLLNKNRNPHMSKEQIEEELKKYLGVSFIWLPRLYGDDEDTN
IHVDGEGTCLVT
FQHSMILEGGSIHVDGE
EGGSIHVDGEGTCLVTE

GHIDNMCCFARPGVVLLSWTDDETDPQYERSVEALSVLSNSIDARGRKIQVIKLYIPEPLYMTEESSGITQDGEAIP
CCFARPGVVLLSW IQVIKLYIPEPLYMTEE
IDNMCCFARPGVVLLSW PHHSVVGIENAREIVLAGGNIHCITQQQPAEPT
RLAGTRLAASYVNFYIANGGIIAPQFGDPIRDKAIRVLSDFPHHSVVGIENAREIVLAGGNIHCITQQQPAEPT
YIANGGIIAP PHHSVVGIENAREIVLAGGNIHCITQ
SYVNFYIANGGIIAPQF NAREIVLAGGNIHCITQ

>T0204

PELRKDPVTNRWVIFSP!SCPCIGREQECAPELFRVPDHDPNWKL RV IENLYPALSRNLET!RTIVGFGFHDVVI ESPV
ELRKDPVTNRWVIF ELFRVPDHDPNWKL RV I E

LRVIENLYPALSRNLET*RTIVGFGFHDVVI

~~LRVIENLYPALSRNLET*RTIVG~~

LET*RTIVGFGFHDVVI E

HSIQLSDIDPVGIGDILIA YKKRINQIAQHDSIN YIQVFNQ GASAGASMSHSHSQMMALPVVPTVSSRLDGTKDYFEE

YIQVFNQ GASAGASMSHSHSQMMAL

~~YIQVFNQ GASAGASMSHSHSQMMA~~

TGKCCLCEAKSKHFVIDESSHFVSVAPFAATYPFEIWIIPKDHSSHFHHL DVKAVDLGGLLKLMLQKIAKQLNDPP

FVIDESSHFVSV A

FVSVAPFAATYPFEIWIIP

CCLCEAKSKHFVIDESS

KHFVIDESSHFVSVAPF

FVSVAPFAATYPFEIWI

YNYMIHTSPLKVTESQLPYTHWFLQIVPQLSGVGGFEIGTG CYINPVFPEDVAKVMREVS LT

YNYMIHTSPLKVTESQLPYTHWFLQIVP

~~MIHTSPLKVTESQLPYTHWFLQIV~~

HWFLQIVPQLSGVGGFE

>T0205

KNRIQVSNTKKPLFFYVNLAKRYMQQYNDVELSALGMAIATVVTVTEILKNNGFAVEKKIMTSIVDIKDDARGRP

KNRIQVSNTKKPLFFYV

AVEKKIMTSIVDIKDDARGRP

VQKAKIEITLVKSEKFDELMAAANEEKE

VQKAKIEITLVK

>T0206

SGLGLPAGLYAFNSGGISLDLGINDPVPFNTVGSQFGTAISQLDADTFVISETG FYKITVIANTAT

PAGLYAFNSGGISLDL G

ISQLDADTFVI

~~ADTFVISETG FYKITVI~~

ASVLGGLTIQVNGVPVPGTGSSLISLGAPIVIQAITQITTPSLVEVIVTGLGLSLALGTSASIIIEKVAHH
GLTIQVNGVP
LGGLTIQVNGVPVPGTG

>T0208

MKWGFRWYGAAGDAIPLKHIRQIPGITGVVGTLLNKLPGDVWTVAEIQALKQSVEQEGLALLGIESVAIHDAIKAGTDQR
DHYIDNYRQTLRNLGKCGISLVCYSFKPIFGWAKTDLAYENEDGSLSLFDQAVVENMQPEDMYQLIHS!WEEERLQQFQ
DLAYENEDGSLSLFD
LVCYSEKPIFGWAKTDL
PIFGWAKTDLAYENEDG
ELKAMYAGVTEEDLVENLRYFLERVIPVCEEENIKMGIHPDDPPWEIFGLPRITKNLADLKRILSLVDSPANGITFCTGS
LGADPTNDLPTMIREIGHRINFVHFRNVKYLGEHRFEETAHPSVAGSLDMAELMQALVDVGYEGVIRPDHGRAIWDEKAM
VKYLGEHRFEE
FRNVKYLGEHRFEETAH
PGYGLYDRAMGLTYIQGLYEATKAK

>T0209

MNDLTLSPIAIIHTPYKEKFSVPRQPNLVEDGVGIVELLPPYNSPEAVRGGLEQFSHLWLFQF!VGVFASRATHRPNP
AIIHTPYKEKFSVPRQPNLVEDGVGIVEL HLWLFQF*VGVFASRATHRPNP
~~DLTLSPIAIIHTPYKEKFSVPRQPNLVEDGVGIVELL~~
LGLSKVELRQVECEINGNIFLHLGAVDLVDGTPIFDIKPYIAYADSEPNAQSS!VKLTVEFTEQAKSAVKKREEKRPHLSRFI
LGLSKVELRQVECI
LGLSKVELRQVECEINGNIFLHLGA
ELRQVECEINGNIFLHLG ~~FDIKPYIAYADSEPNAQSS*VKLTV~~
HLGAVDLVDGTPIFDIK
RQVLE!DRIYGMSLYEFNVKW!AGTVNCVE
GMSLYEFNVK

>T0211

IDLCLSSEGSEVILATSSDEKHPPENIIDGNPETFWTTTGMFPQEFHICFHKHVRIERLVIQSYFVQTLKIEKSTSKEPVDF
XIDLCLSSEGSEVILA VQTLKIEKSTSKEPVDF

EVILATSSDEKHPPENIIDGNPETFWTT

EQWIEKDLVHTEGQLQNEEIVAHGSATYLRFIIVSAFDHFASVHSVSAEGTVVS
EQWIEKD QNEEIVAHGSATYLRFI

>T0212

ALDNSIRVEVKTEYIEQQSSPEDEKYLFSYTITIINLGEQA AKLETRHWIITDANGKTSEVQGAGVVGETPTIPPNTAYQY
IRVEVKTEYIEQQSSPEDEKQSSPEDEK AKLETRHWIITDANGKTSEVQGA
EYIEQQSSPEDEKYLFS HWIITDANGKTSEVQ PNTAYQY
TSEVQGAGVVGETPTIPPNTAYQY

TSGTVLDTPFGIMYGTYGMVSESGEHFNAIKPFRLATPGLLH
FGIMYGTYGMVSESGEHFNAIKPFRLA

‡

TSGTVLDTPF GTYGMVSESGEHFNAIK
TSGTVLDTPFGIMYGTY SGEHFNAIKPFRLATP

>T0213

MQPNDITFFQRFQDDILAGRKTITIRDESESHFKTGDVLRVGRFEDDGYFCTIEVTATSTVTLDTLTEKHAEQENMTLTE
VLRVGRFEDDGYFCTIEVTATSTV
DGYFCTIEVTATSTVTLDTLTEKHAEQENMTLTE

TIRDESESHFKTGDVLR

LRVGRFEDDGYFCTIEV

LKKVIADIYPGQTQFYVIEFKCL
LKKVIADIYPGQTQFYVIEFK

>T0214

MEWEMGLQEEFLELIKLRKKKIEGRLYDEKRRQIKPGDVISFEGGKLVKRVKAIIRVYNSFREMLEKEGLENVLPGVKSIE
ISFEGGKLVKRVKA
LKVRVKA IRVYNSFREMLEKEGLENVLPGVKSIE
PGDVISFEGGKLVKRVK

EGIQVYRRFYDEEKEKKYGVVAIEIEPLEY
EGIQVYRRFYDEEKEKKYGVVAIEIE

>T0215

RNLSDRAKFESMINSPSKSVFVRNLNELEALAVRLGKSYRIQLDQAKEKWKV

No hairpin found by promotif

No ECE pattern found

>T0216

TFEEFKDRLFALAKKNGVEVQISFLETREFSLRLANGDLDQYTDAGKFNVEIKVLKDGKTGTFRVLENPEKCFEEALS
EVQISFLETREFSLRLANGDLDQYTDAGKFNVEIKVLK
DLDQYTDAGKFNVEIKVLKDGKTGTFRV
REFSLRLANGDLDQYTD
GDLQYTDAGKFNVEIK
VEIKVLKDGKTGTFRV
NLQVK!KEYFFEGGKEYREMETYVGRFEKLSVKEKMDMAKKAHESA AKDERVVMVPTVMYKDMVIKKIITNTLGL
VVMVPTVMYKDMVIKKIITNTLGL
KDERVVMVPTVMYKDMV

DVESQMDGGFLFAMAIARDANPRSGSWYELARTPEDLNPEEIGKRAAEEAISLIGSKTIPSGKYPVLMRNTALLDLMEMFIPM
DVESQMDGGFLFAMAIA
DVESQMDGGFLFAMAIARDANPRSGSWYELA
MAIARDANPRSGSWYEL

ISAENVQKNLSPLK GKLG EQVGNPAVSIKDLPYHPKGLSSTPFDDDEGVPTTEK FVLENGVLKTFLHNLKTARKEGVEPTGN
IKDLPYHPKGLSSTPFDDDEGVPTTEK FVLE
K FVLENGVL
~~VSIKDLPYHPKGLSSTPFDDDEGVPTTEK FVLE~~

TTEK FVLENGVLKTFLH
GFVGGIRPVNLMLMPGEKSFEELLKEMDRGVVITEVEGMHAGANSISGEFSLFAKGYWVENGEIAHGVEDITISGNFLDLL
GFVGGI GVVITEVEGMHAGANSISGEFSLFAKGYWVE
EFSLFAKGYWVENGEIAHGVEDITISGN
~~VVITEVEGMHAGANSISGEFSLFAKGYWVE~~
FAKGYWVENGEIAHGVE
ENGEIAHGVEDITISGN

RKIVLVGNDVKVSQHTIAPSVLVEVLDVA
KVSQHTIA

>T0222

AAFQIANKTVGKDAPVFIIAEAGINHDGKLDQAFALIDAAAEAGADAVKFMFQADRMYPKDP!DVSIFSLVQSMEMPAAE
AFQIANKTVG
FQIANKTVGKDAPVEH
WILPLLDYCREKQVIFLSTVCDEGSADLLQSTSPSAFKIASYEINHLPLLKYVARLNRPMIFSTAGAEISDVHEAWRTIR
AEGNNQIAIMHCVAKYPAPPEYSNLSVIPMLAAAFPEAVIGFSDHSEHPTEAPCAAVRLGAKLIEKHFTIDKNLPGADHS
FALNPDELKEMVDGIRKTEAELKQGITKPVSEKLLGSSYKTTTAEIGEIRNFA YRGIFTTAPIQKGEAFSEDNIAVLRPG
GIFTTAPIQKGEAFSEDNIAVL
IFTTAPIQKGEAFSEDN
QKGEAFSEDNIAVLRPG

QKPQGLHPRFFELLTSGVRAVRDIPADTGIVWDDILLKD

>T0223

MNIFEAIENRHSVRDFLERKMPERVKDDIENLLVKFITKKLDWKINLSSFPSYIYAKAEKHFDDELVEYGFQGEQIVLFLT
KINLSSFPSYIY QIVLFLT
AQQFGTCWMARSPHPDVPYIIVFGYPRTRNFTRKRRPITSFLENDLEELPPEIVKIVEMTILAPSALNRQPWKIKYTGG
GTCWMARSPHPDVPYIIVFG KIKYTGG
AQQFGTCWMA MTLAPSALNRQPWKIK
GTCWMARSPHPDVPYH QPWKIKYTGG
GG
ELCISSEPVDLGIALSHAYLTAREIFKREPVIQKRGEDTYCLILNP
ELCIS VIQKRGEDTYCLI
ELCISSE
ELCISSEPVDLGIA

>T0224

MALVLVKYGTDPVVEKLIKIRSAKAEDKIVLIQNGVFWALEELETPAKVYAIKDDFLARGYSEEDSKVPLITYSEFIDLLEGEE
KFIG
EKLKIRSAKAEDKIVLI

No hairpin found by promotif

>T0226

MRDLREETYLVDRITGLALELRDLVGTGPVPGEAYPGPHALGYGEGQFAALLSGLPDWGEEGTLFLEGGYDLGEAAGM
EETYLVDRITGLALELRD
AETGRARVVRVGFPRGVEVHIPPSPLAPYRYLRFLLLATGREEVLRVDEALLEERRRLGPEVPVEENPAKFLAYTLLERLPL
ARVVRVGFPRGVEVHIP
FYSPLFRPLEGAVQTLFARVAKSLSTPPPSALEFFLVGLEARHEQGDPLAAVLLGPGEAALAKEILES RVDALAEVPATGA
NRLAQVMALWYRMAWTAYYLALLYGVDPGDHGLL

No hairpin found by promotif

>T0227

MERP~~KLGLIVREPYASLIVDGRK~~VWEIRRRKTRHRG~~PLGIVSGGRLIGQADLVGV~~!PLYAWVLEN~~AFRYEKPLHVP~~!MFV
GPLGIVSGGRLIGQADLVG
RLIGQADLVGV*PLYAWVLEN~~AFRYEKPLH~~
RGPLGIVSGGRLIGQAD

DLSEVR

>T0228

MSEPV~~IKSLLD~~TD~~MYKITMHA~~AVFTN~~FPDVT~~VTYKY~~TNRSSQLTFN~~KEAINWLKEQFSYLGN~~LRFT~~EEEEIEYLKQEIPYL
PSAYIKYISS~~SNYKLHP~~EEQISFTSEEIEGKPTHY~~KLKILVSGSW~~KDTILYEIPLLSLISEAY~~FKFVDIDWD~~YENQLEQA
ISFTSEEIEGKPTHY~~KLKILVSGS~~
~~ISFTSEEIEGKPTHYKLKILVS~~
EKKAETLFDNGIRFSEFGTRRR~~RS~~LKAQDLIMQGIMKAV~~NGNPDRNKS~~LLLGTSN~~ILFAKKYGVKPIGTVAHEWVMG~~VAS
GIRFSEFGTRRR~~RS~~LKA
ISEDY~~LHANKNAMDCWINTF~~GA~~KNAGLALTD~~TFGTDDFLK~~SFRPPYSDAYVGV~~RQDSGDPVEYTKKISHHYHDV~~LKLPKFS~~
AKNAGLALTD~~TFGTDDF~~
KIICYS~~DSL~~NVEKAITYSHA~~AKENGMLATFGIGTNFTNDF~~FRKKSEPQVKSEPLNIVIKLLEV~~NGNHAIKISDNLGKNMGD~~
FRKKSEPQVKS IVIKLLEVNGNH
NGMLATFGIGTNFTNDF IVIKLLEVNGNHAIKIS
~~NFTNDFRKKSEPQVKSEPLNIVIKLEV~~

PATVKRVKEELGYTERSW

>T0229

MQARWIGNMMFHVRTDSNHDV~~LMDT~~KEEVGGKDAAPR~~LELVLTGLMGCTGMDVVSILRKM~~VIDQMKDFRIEIEYER
ARWIGNMMFHVR MKDFRIEIEYER
MFHV~~RTDSNHDVLM~~ IEIEYER
XXMQARWIGNMMFHVRT
MMFHVRTDSNHDV~~LMDT~~

TEEHPRIFTKVHLKYIFKFDGEPKDKVEKAVQLSQEKYCSVSAILKCSSKVTYEIVYEN
TEEHPRIFTKVHLKYIFK
TEEHPRIFTK

>T0230

MSKKVTKEDVLNALKNVIDFELGLDVVSLGLVYDIQIDDQNNVKVLMTMTTPMCPLAGMILSDAEEAIKKIEGVNNVEVE
VYDIQIDDQNNVKVLM
VYDIQIDDQNNVKVLMT
LTFDPPWTPERMSPELREKFGV

>T0231

VVCEVDPELKETLRKFRFRKETNNAAIIMKVDKDRQMVVLEDELQNISPEELKLELPERQPRF
AAIIMKVDKDRQMVVLEDELQ
KFRFRKETNNAAIIMKV
AAIIMKVDKDRQMVVLE

VVYSYKYVHDDGRVSYPLCFIFSSPVGCKPEQQMMYAGSKNRLVQTAELTKVFEIRTTDDLTTETWLKEKLAFFR
YVHDDGRVS KNRLVQTAELTKVFEIR
YSYKYVHDDGRVSYPLC

>T0232

EDGMNTFDLYYWPVPRGQLIRGILAHCGCSWDEHDVDAIEGLMDCGAEKQPVAFMGPPVLIDRERNFAISQMPAIAIYL
VLIDRERNFAIS
EKQPVAFMGPPVLIDRE
VLIDRERNFAISQMPAIAIYL
IAIYL
GERLDILPATVEGRTLSAKIVNDANDVLDELTLNGGREMWTPEKWQEFVPRQLQKWIRIFADTGARNGLSAASGFMLGTEK
GERLDILPATVE
RLDILPATVEGRTLSAK

IGVADIVTAILWTTVADRFP AIKGIIEDTSPIIWGLSRRVVATAPLAA LNSKSFEEYGNAYCGGEIEKSLRKVAS

>T0233

SWYLLLQQLIDGESLSRSQA AELMQGWLSEAVPELSGAILTALNFKGVS ADEL TGMAEVLQS QSKM!NSPFSIIDTCGT
G!SSTFNISTAVAFVAAA YGVPVAKHG NR!SLTGSADVLEALGVNLGASPEKVQAALQE VGITFLFAPGWH PALKAVATL
RRTL RIRTVFNLLGPLVNPLRPTGQVVGLFTPKLLTTVAQALDNLGKQKAIVLHGRERLDEAGLGD L TDLAVLSDGELQLTTI
KAIVLHGRERLDEAGLGD L TDLAVLS
TDLAVLSDGELQLTTI
~~AIVLHGRERLDEAGLGD L TDLAVLS~~
TDLAVLSDGELQLTTI
NPQEVGVTPAPIGALRGGDVQENAEILKAVLQGGKTQAQQDAVALNAALALQVAGAVPLLDHAQGVSVAKEILQTGTAW
AKLAQLVYFLGN

>T0234

YAGFIQEFQSAIISTISEQGIPNGSYAPFVIDDAKNIYIYV SGLAVHTKNIEANPLVNVLFVDDEAKTNQIFARRRLSFDCTATLI
SAIISTISEQGIPNGSYAPFVI LVNVLFVDDEAKTNQIFARRRLSFDCTATLI
PNGSYAPFVIDDAKNIYIYV RLSFDCTATLI
YAPFVIDDAKNIYIYVS NVLFVDDEAKTNQIFAR
ERESQKWNQVVDQFQERFGQIIEVLRGLADFRIFQLTPKEGRFVIGFGA
ERESQKWNQVVDQFQERFGQIIEVLRGLADFRIFQLTPKEGRFV
FRIFQLTPKEGRFVIGF

>T0235

QFAQLPVGFKNMGNTCYLNATLQALYRVNDLRDMILNYNPSQGVSNQGAQDEEIHKQIVIEMKRCFENLQNK!FKSVLPI
 VLLNTRLKCYPPQFAERD!FYKQQDAEELFTQLFHMSIVFGDKFSEDFRIQFKTTIKDTANDNDITVKENESDSKLQCHI
 IQFKTTIKDTANDNDITVK DSKLQCHI
~~QFKTTIKDTANDNDITVKENESDSKLQCH~~

SGTTNFMRNGLLEGLNEK!ANSIYSVEKKISRLPKFLTVQYVRRFFWKRSTNKKSKILRKVVFPFQLDVADMLTPEYAAEK
 SGTTN NEK*ANSIYSVEKKISR FFWKRSTNKKSK QLDVADMLTPEYAAEK
 EK!ANSIYSVEKKISRLP
 VEKKISRLPKFLTVQYV

VKVRDELKVEKEKNEK!VMPREQYETQVALNESEKDQWLEEYKKHFPNLEKGENPSCVYNLIGVITHQGANSSESG
 VKVRDELKVEKEKNEK*VMPREQYETQVALNESEKDQWLEEYKKHFPNLEKGENPSCVYNLIGVITHQ
 VYNLIGVITHQGANSSESG
 GVITHQGANSSESG

HYQAFIRDEL DENK WYKFNDDKVS VVEKEKIESLAGGGESDSALILMYKGFGL
 HYQAFIR WYKFNDDKVSVV
 HYQAFIRDEL DENK WYKFN
 HYQA- ENK WYKFNDDKVS VVEK
 QAFIRDEL DENK WYKFN

>T0238

ETIASSELKAIGKELEDQKKEENIQIAKIAKEKFDLSTFKVGPYDLIDEDIQMKIKRTL YSSLDYK KENIEKLKEILEIL
 KKNSEHYNIIGR LIYHISWGIQFQIEQNLELIQNGVENLSQEESKSLLMQIKSNLEIKQRLKKT NETLKVYNQNTQDNE
 KILAEHFNKYYKDFDTLKPAP

No hairpin by promotif
 No hairpin by Bhairpred

>T0239

MKKHIIKTIPKKEEII SRDLCD CIYYY DNSVICKPIG PSKVYVSTLENLEKCLQLHYFKKLVKNIEIFDEVH
ICKPIG PSKVYVST
CDCIYYYDNSVICKPIG
DNSVICKPIG PSKVYVS
NSKPNCDKCLIVEIGGVYFVRRVN
CLIVEIGGVYFVRR
DKCLIVEIGGVYFVRRV

>T0240

ASGPRALS RNQPQYPARAQALRIEGQVKVKFDVTPDGRVDNVQILSAKPANMFEREVKNAMRRWRYE PGKPGSGIVVNIL
GQVKVKFDVTPDGRVDNVQILSAK VVNIL
KVKFDVTPDGRVDNVQI
FKINGTTEIQ
FKINGTTEIQXX

>T0241

PKNVLFQYSTINALMLGQFEGDLTLKDLKLRGDMGLGTINDLDGEMIQMGTKFYQIDSTGKLSPELVKTPFAVTTTFE
MGLGTINDLDGEMIQM KFYQIDSTGKLS
EMIQMGTKFYQI
LDGEMIQMGTKFYQIDS
TKFYQIDSTGKLSPE
GKLSPELVKTPFAV
AVTTTFE

PKEK**T**TLTNVQD**Y**N**Q**L**T**K**M**L**E**E**K**F**E**N**K**N**V**F**Y**A**V**K**L**T**G**T**F**K**M**V**K**A**R**T**V**P**K**Q**T**R**P**Y**P**Q**L**T**E**V**T**K**K**Q**S**E**F**E**F**K**N**V**K**G**T**L**I**G**F**Y**T**
PKEK**T**TLTNV
FYAVKLTGTFKMVKARTVPKQTRPYPQLTEVTKKQSEFEFKNVKGTLIGFYT
FYAVKLTGTFKMVKART
SEFEFKNVKGTLIGFYT

PQLTEVTKKQSEFEFKN
KQSEFEFKNVKGTLIGF

PNYAAALNVPGFHLHFIT**E**D**K**T**S**G**G**H**V**L**N**L**Q**F**D**N**A**N**L**E**I**S**P**I**H**E**F**D**V**Q**L**P**H**T**D**D**F**A**H**S**D**L**T**Q**V**T**T**S**Q**V**H**Q**A**E**S**E**R**K
PNYAAALNVPGFHLHFIT
GFHLHFIT**E**D**K**T**S**G**G**H**V**L**N**L**Q**F**D**N**A**N**L**E**I**S**P**I
LHFIT**E**D**K**T**S**G**G**H**V**L**N**L
HVLNLQFDNANLEISPI

>T0242

G**K**V**F**L**T**N**A**F**S**I**N**M**L**K**E**F**P**T**T**I**D**K**L**D**E**E**D**F**C**L**K**L**E**L**R**L**E**D**G**T**L**I**N**A**I**G**H**D**S**T**I**N**L**V**N**T**L**C**G**T**Q**L**Q**K**N**R**V**E**V**K**M**N**E**G**D**
T**I**D**K**L**D**E**E**D**F**C**L**K**L**E
L**K**L**E**L**R**L**E**D**G**T**L**I**N**A**I**G
NRVEVKMNEGD

E**A**L**I**M**I**S**Q**R**L**E**E**G**K**V**L**S**D**K**E**I**K**D**M**Y**R**Q**G**K**I**S**F**Y**E**V**W**
E**A**L**I**M
E**A**L**I**M**I**S**Q**R**L**E**E**G**K**V**L**S**D**K**E**I**K**D**M**Y**R**Q**G**K**I**S**F**Y**E**V**W**

>T0243

Y**M**R**I**N**Y**I**I**L**K**V**L**V**I**N**G**S**R**L**E**K**K**R**L**R**S**E**I**L**K**R**F**D**I**D**I**S**D**G**V**L**Y**P**L**I**D**S**L**I**D**D**K**I**L**R**E**E**E**A**P**D**G**K**V**L**F**L**T**E**K**G**M**K**E**F**E**L**H**E**F**F**K**I
L**R**E**E**E**A**P**D**G**K**V**L**F**L**

VC

No ECE pattern detected by Bhairpred

>T0244

KVKKAVIPVAGLGTRMLPATKAIPKEMLPLVDKPLIQYVVNECIAAGITEIVLVTHSSKNSIENHFDTSFELEAMLEKRV
PLVDKP
KRQLLDEVQSICPPHV TIMQVRQGLAKGLGHAVLCAHPVVGDEPVAVILPDVILDEYESDLSQDNLAEMIRRFDETGHS
DEPVAVILPDVILDEYE

QIMVEPVADVTAYGVVDCKGVELAPGESVPMVGVVEKPKADVAPSNLAIVGRYVLSADIWPLLAKTTPGAGDEIQLTDAID
MVEPVADVTAYGVVDCK GVVEKPKADVAPSNLAI
VVDCKGVELAPGESVPM
MLIEKETVEAYHMKGKSHDCGNKLYMQAFVEYGIRHNTLGTEFKAWLEEEMGIKK
ETVEAYHMKGKSHDCGN

>T0246

MKIAVLPDGGIGPEVVREALKVLEVVEKKTGKTFEKVFGHIGGDAIDRFGEPLPEETKKICLEADAIFLGSVGGPKWDDL
PPEKRPEIGLLALRKMLNLYANIRPIKVYRSLVHVSPLKEK VIGSGVDLVTVRELSYGVYYGQPRGLDEEKGFDTMIYD
DLVTVRELSYGVYYGQPRGLDEEKGFDTMIYD
ANIRPIKVYRSLVHVSPLKEK VIGSGVDLVTVRE GQPRGLDEEKGFDT
RKTVERIARTAFEIAKNRRKKVTSVDKANVLYSSMLWRKVNEVAREYPDVELTHIYVDNAAMQLILKPSQFDVILTTNM
FGDILSDESAALPGSLGLLPSASFGDKNLYEPAGGSAPDIAGKNIANPIAQILSLAMMLEHSFGMVEEARKIERAVELVI
PSASFGDKNLYEP
EEGYRTRDIAEDPEKAVSTSQMGDLICKKLEEIW

>T0247

QTPLYEQHTLCGARMVDFHGWMMPLHYGSQIDEHHAVRTDAGMFDVSHMTIVDLRGSRTREFLRYLLANDVAKLTKSG
RMVDFHGWMMPLH DAGMFDVSHMTIVDLRG
ARMVDFHGWMMPLHYGS
KALYSGMLNASGGVIDDLIVYYFTEDFFRLVVNSATREKDLSWITQHAEPFGIEITVRDDLSMIAVQGPNAQAKAATLFNDA
ALYSGMLNASGGVIDDLIVYYFT FGIEITVRDDLSMIAVQ

LYSGMLNASGGVIDDLI
VIDDLIVYYFTEDFFRLVV
DLIVYYFTEDFFRLVVN
NASGGVIDDLIVYYFTE
QRQAVEGMKPF~~FGVQAGDLFIATTGYTGEAGYEIALPNEKAADFWRALVEAGVKPCGLGARDTLRLEAGMNL~~YGQEMD
GVQAGDLFIA
GMKPF~~FGVQAGDLFIAT~~
LFIATTGYTGEAGYEIALP
LFIATTGYTGEAGYEIA

ETISPLAANMGWTIAWEPADRDFIGREALEVQREHGTEKLVGLVMTEKGVLRNELPVRFTDAQGNQHEGIITSGTFSPTLG
ETISPLAANMGWTIAWE GLVMTEKGVLRNELPVR
PVRFTDAQGNQHEGIITSGTFS
LPVRFTDAQGNQHEGII
QHEGIITSGTFSPTLG
NQHEGIITSGTFSPTLG
TSGTFSPTLG

YSIALARVPEGIGETAIVQIRNREMPVKVTKPVFVRNGKAVA
YSIALARV TAIVQIRNREMPVKVT VRNGKA
YSIALAR EMPVKVTKPVFVRNGKA
ALARVPEGIGETAIVQI
GETAIVQIRNREMPVKV

>T0248

PNQFVNHLSALKKH~~FASYKELREAFNDYHKHNGDEL~~TFFLHQFDKVMELVKQKDFKTAQSRCEEELAAPYL~~PKPLVSFF~~
QSLQLVNHD~~LLEQQNAALASLPA~~AKIIE~~LVLDY~~PNKLNMIHYLLPKTKAFVKPHLLQRLQFVLTDSELLELKRFSFFQ

ALNQIPGFQGEQVEYFNSKLLKQKFTLTLGFEFIAQQPDAKAYFEQLITQIQQLFLKEPVNAEFANEIIDAFLVSYFPLHP
QVEYFNSKLLKQKFTLT
EQVEYFNSKLLKQKFTLT
PVPLAQLAAKIYEYVSQIVLNEAVNLKDELIKLIVHTLYEQLDRPV

>T0249

MQEQRQQLLSLEALIFSSEEPVNLQTLSQITAHKFTPSELQEAVDELNRDYEATGRTFRIHAIAGGYRFLTEPEFADLVR
FRIHAIAGGYRFLT
RTFRIHAIAGGYRFLTE
QLLAPVIQRRLSRSMLEVLAVVAWHQPVTKGEIQQIRGASPDYSIDRLLAGLIEVRGRADSPGRPLQYGTTEVFLDLFHL
IEVRGRADSPGRPLQYGT

>T0251

MVVGADVICASCVNAPTSKDIYDWLQPLLKRKYPNISFKYTYIDITKD!LTDHDLQFIERIEQDELFYPLITMND EYVAD
LITMND EYVAD
GYIQTKQITRFIDQKLVNE

No hairpin by Bhairpred

>T0262

VRLSKTLAGILRHHPGRYGVRLTREGWARVSEVVEGLRKAGWSWVEEWHIVGVALHDPKGRYELRNGEIRARYGHSIPVN
YELRNGEIRA
PKGRYELRNGEIRARYG
RNGEIRARYGHSIPVN
VEPLPGEPPILYHGTTEEALPLIMERGIMRGRRLKVHLTSSLEDAVSTGRRHGNLVAVLLVDVECLRRRGLKVERMSKT
ERMSKT
GLKVERMSKT
VYTV
VYTV
VYTV

>T0263

ATLLQLHFANPFGDAMAEQLKPLAESINQEPGFLWKVWTESEKNHEAGGIYLFDEKSALAYLEKHTARLKNLGVVEE
FLWKVWTESEKNHEAGGIYLF
KVVWTESEKNHEAGGIYLF
VAKVFDVNEPLSQINQA

>T0264

EAVTLLLVGWGYAPGMQTLEALDAVRRADVYVESYTMPGSSWLYKSVVEAAGEARVVEASRRDLEERSREIVSRALDA
VVAVVTAGDPMVATTHSSLAAEAELEAGVAVRYIPGVSGVQAARGATMLSFYRFGGTVTLPGPWRGVTPISVARRIYLNLC
VVAVVTAGDPMVATTHSS
AGLHTTALLDVDERGVQLSPGQVSLLEADREYAREAGAPALLARLPSVLVEAGAGGGHRVLYWSSLERLSTADVEGG
TALLDVDERGVQLSPGQ SVLVEAGAGGGHRVLYW
VYSIVIPARLSGVEEWLLAASGQRRPLEYDRSVYETVEENCKKGVYMEPV

>T0265

MMKEKLESKKDEIRCCYKITD TDVAVLLKMVEIEKPITSEELADIFKLSKTTVENSLKKLIELGLVVRTKT!PKYYYSIS
VVRTKT*PKYYYSI
LGLVVRTKT!PKYYYSIS
SNILEKIRNDLLNCAKRMELAAAT

>T0266

EKVEEWIKARGLTWRLLIMQKPTRTVAEAAAALLGVSESEIVKTLIVLDNAGGVYAVVIPGDKRLNINSMKEL
VKTLIVLDNAGGVYAVVIP
KTLIVLDNAGGVYAVVI
GVYAVVIPGDKRLNINS

AGKPVRLARANEVVELTGYPVGGVPPVALPPNIVLVVDRILLSRKKVYGGGGRENALLEFSPRELVEATGAVVADVSE
KPVRLARANEVVELTGY VYGGGGRENALLEF
~~VVELTGYPVGGVPPVALPPNIVLV~~

>T0267

VRIRRAGLEDLPGVARVLVDTWRATYRGVVPEAFLEGLSYEGQAERWAQRLKTPTWPGRLFVAESESSEGEVVGFAAFGPDR
RIRRAGLEDLPGVARVLVDTWRATYRGVVPEAFLEGLSYEGQAERWAQRLKTPTWPGRLFVAE ~~VVGFAAFGPDR~~
RLFVAESESSEGEVVGFAAF
RLFVAESESSEGEVVGFAA
ASGFPGYTAELWAIYVLPTWQRKGLGRALFHEGARLLQAEGYGRMLVWVLKENPKGRGFYHLGG
~~ASGFPGYTAELWAIYVL~~
VLLGEREIELGGAKLWEVAYGFDLGGHKW
VLLGEREIELGGAKLWEVAYGFD
LGEREIELGGAKLWEVA

>T0268

MTHVPVLYQEALDLLAVRPGGVYVDATLGGAGHARGILERGGRVIGLDQDPEAVARAKGLHLPGLTVVQGNFRHLKRHLA
ALGVERVDGILADLGVSSFHLDDPSRGFSYQKEGPLDMRMGLEGPTAKEVVNRLPLEALARLLRELGEEPQAYRIARAIV
AAREKAPIETTTQLAEIVRKAVGFRRAGHPARKTFQALRIYVNDELNALKEFLEQAAEVLAPGGRLVVI AFHSLED RVVK
RFLRESGLKVLTKKPLVPSEKEAAQNPRARSAKLRAAEKEA
KVLTKKPLVPSEKEAAQNPRARSAKLRAAE

No ECE pattern predicted by Bhairpred

>T0269

PGSIPLIGERFPMEVTTDGHGVIKLPDHYVSQGKWFVLFSPADFTPVCTTEFVSFARRYEDFQRLGVDLIGLSVDSVFS
 MEVTTDGHGVIKLPDHYVSQGKWFV
 PEMEVTTDGHGVIKLPDHYVSQGKWFV
 GVIKLPDHYVSQGKWFV
 HIKWKIEWIERHIGVRIPFPIIADPQGTVARRLGLLHAESATHTVRGGVFIVDARGVIRTMLYYPMELGRLVDEILRIVKAL
 RGVFIVDARGVIRTMLYY
 VRGGVFIVDARGVIRTML
 KLGDSLKRAVPADWPNNIIEGGLIVPPPTTEDQARARMESGQYRCLDWWFCWDTPASRDDVEEARRYLRRAAEKPAK
 RAVPADWPNNIIEGGLI
 CLDWWFCWD
 LLYE

>T0271

MELKLIPIEKPENLNVILGQAHFIKTVEDLHEALVTAVPGIRFGLAFSEASGKRLVRRSGTDEALVELAVKNLLNLACGHVF
 FGLAFSEASGKRLVRRSG
 LIVLGEFGYPINVLHAVKACPEVVRIYAATANPLKVVVAEEGEQRAILGVMDGFTPLGVEDEAEVAWRKDLLRRLGYKL
 LKVVVAEEGEQRAILGVMD

>T0272

MWLTKLVLPASRAARRDLANPYEMHRTLSKAVSRALEEGRELLWRLEPARGLEPPVVLVQTLTEPDWSVLDEGYAQVF
 LWRLEPARGLEPPVVLVQT
 LWRLEPARGLEPPVVLV EGYAQVF
 PPKPFHPALKPGQRLRFRLRANPAKRL!KTPAEKVAWLERRLEE GGFRLLEGERGPVWQILQDTFLE!QVQAVLFEGRLEV
 PPKPFHPALK EGERGP VQILQDTFLE*QVQAVLFEGRLEV
 KPFHPALKPGQRLRFR GGFRLLEGERGPVWQIL E*QVQAVLFEGRLEV
 VDPERALATLRRGVGPGKALGLGLLSVAP
 VDP

>T0273

PLVLDLARPVSEELRRLSELNPGYQWERSPEGRLWVSP TGGESGRRSLQLAYQLARWNEERGLGVVFDSSSTGFKFPDGS
YQWERSPEGRLWVSP FKFPDGS

~~GVVFDSSSTGFKFPDGS~~

ILSPDAAFVERGAW EALSEAEREGFPPLAPKAVFEVRSASQDPEELRAKMG IYLRNGVLLGVLVDPYARAVEVFRPGKPP
IL AAFVERGAW EALSEAEREGFPPLAPKAVFEV LGVLVDPYARAVEVF

⌘ AKMGIYLRNGVLLGVLV AVEVFRPGKPP
GKPP

LRLEGVERVSLDPELPGFALSPLPLW

LRLE RVSLDPELPGFALS

LRLEGVERVSLDP

GVERVSLDPELPGFALS

>T0274

NLEAKKKVLR SFTYGLYVLTAKDGDEVAAGTVNWV TQASFQ!PLVAVGLKRDSHLHALVERTGKLALMTLAHDQKAI AQD
YVLTAKDGDEVAAGTV VTQASFQ*PLVAVGLK

VLTAKDGDEVAAGTVNW

TVNWV TQASFQ*PLVAVG

FFKPTVREGDRLNGHPFEPSP TFG LPLLTEL PYWLEAEVRHLYPGGDHSLVVAEVVEAGVRREEKPLVMWDTGW FYG

REGDRL HPFEPSP TFG LPLL YWLEAEVRHLYPGGDHSLVVAEVVEAGV

RLNGHPFEP

>T0275

FKTILLYD GSEHARRAAEVAKAEAEAHGARLIVVHAYEPVPDYLGE PPFEEALRRRLERAEGVLEEARALTGV PKEDALLL
EGVPAEAILQAARAEKADLIVMGTRGLGALGSLFLGSQSQRVVAEAPCPVLLV

No hairpin predicted by promotif

>T0276

MTKAELRRRARAAWRRRLDLKALSRAVGAALLPWLREGRFRHILLYHPLPHELNLLPLMEAYPARYYLPKVAGKGLTVHPF
 RYYLPKVAGKGLTVHP
 GPLA!EPTTPPEDPRVLDLVVVVPGLAFDREGYRLGHGQGFYDRFLKEVRAATVGVVVPQALLFPALPRDPWDVPVD
 AFDREGYRL
 RVLDLVVVVPGLAFDREG
 VVVVPGLAFDREGYRLGHG
 HLATEAGVEAVKRP
 HLATEAGVEA

>T0277

ASLARAVERLKAALERPDEFIRDSAIQRFEFTFELAWKTLKTFLELQGLEARSRAAIRGAFQVGLLPEDPFWLEMLELRNL
 TNHTYDEALAERIYAELPKALERFQELLRRLEEP
 No hairpin by promotif

>T0279

AVRVAYAGLRRKEAFKALAEKLGFTPLLFPVQATEKVPVPEYRDQVRALAQGVDFLATTGVGVRDLLEAG
 KALGLDLEGPLAKAFRLARGAKAARALKEAGLPPHAVGDGTSKSLPLLPQGRGVAALQLYGKPLPLENA
 LAERGYRVLPLMPYRHLDPPEGILRLEEALLRGEVDALAFVAAIQVEFLFEGAKDPKALREALNTRVKALAV
 GRVTADALREWGVPFYVDETERLGSLLQGFKRALQKEVA
 No hairpin predicted by promotif

>T0280

MRFRDRRHAGALLAEALAPLGLEAPVVLGGLPRGGVVVADEVARRLGGELDVVLVRKVGAPGNPEFALGAVGEGGELVLM
 APVVLGGLPRGGVVVADE VRKVGAPGNPEFALGAVG
 NPEFALGAVGEGGELVL
 VLVVRKVGAPGNPEFALG
 FALGAVGEGGELVLM
 PYALRYADQSYLEREAARQRDVLKRKAERYRRVRPKAARKGRDVVLVDDGVATGASMEAALS VVFQEGPRRVVVAVP
 VASPEAVERLKARAEVVALSVPQDFAAVGAYYLDGFEVTDEDVEAILLEWAG

>T0281

MWMPPEEVARKLRRLGFVERMAKGGHRLYTHPDGRIVVVPFHSGELPKGTFKRILRDAGLTEEEFHNL
VERMAKGGHRLYT
HRLYTHPDGRIVVVP
GGHRLYTHPDGRIVVVP

>T0282

No hairpin predicted by promotif