

Hc H11 MTSQG-----RTRTLNLTPIRLIVALFLVAAVGLSIGLTYFTRKAFDTSSEKPGKDDTGKDKDNDSPSAEELLSPNIKPLSYDLTIKTYLPGYVDFPPEK**NLT**
Hc H11-4 MTARE-----RKRSLVE**FTPFSLAFAMFAVAAVGLAIGLTYFTRKAFDPTQKD-KDQPGGKEKDNPSAEELLSPNIKPLLYDLTIKTYLPGYVDFPPEK**NLT****
Hc H11-2 MTAEW-----QKRRIL**GFSPISLLCTLEFLVAAVGLSIGLTYFTRKAFDTSQKEQKDDTGKKEKDNPSAEELLSPNIKPVSYDLSIKTYLPGYVDFPPEK**NLT****
Hc H11-1 MTAESQEQETQQRKNTVLRRLTPIKSLFALLVVAAVGLSIGLTYFTRKAFDPTGGNGK-EDQP IVDNNDSPSAEELRLPTTIKPLTYDLVIKTYLPGYVDFPPEK**NLT**
Hc H11-5 MTVQW-----TKRTVLRKFT**PITLLLLLFLVAAVGLSIGLTYFTRKAYDTTEKN---K-DHGADDNPSAEELRLPKNIEPLLYDLSIKTYLPGYVDFPPEK**NLT****

Hc H11 FDGRVEISMVVEPTKSIVLNSKKI SIVIPQCELVSGDKKLEIESVKEHPRLEKVEFLIKSLEKQDQIILLKVGYIGLISNSFGGIYQTTYTPDGTGPK-IAAVSQNEPI
Hc H11-4 FDGRVEISMVVEPTKSIVLNAKKITVIPAECVLSGTQKLDIESVKEHERLEKLEFRLKSRLEKQKILLKITYAGLISNTLGGIYQTTYTDANGNPK-IAAVSQNEPI
Hc H11-2 FDAHVEISMVVEPTNSIVLNSKKITLAQGGCELVSGNQLDIESVKEHPRLEKLEITLKNQLQKEKILLKITYTGLISNTLGGIYQTTYTDANGNPK-IVAVSQNEPS
Hc H11-1 IDGTVVIAEMEVEPTKSIVLNSK**NIS**VIADQCELVSGNQLDIEKIVDQPRLEKVEFVLLKLEKNQKITLKIYVIGLINDMLGGLYRTTYTDKDGTTK-IAACTHMEPT
Hc H11-5 FDGQVGISLRVVEPTKSIVLNSK**NTI**VIPDKCELVSGDKKLEIESVKEHERLEKLEILLKNRLEKQEVLLKVGTYGIIISNTLGGIYQATYTDGTGTVKRIAATQHCPS

Hc H11 DARRMVMPCDEPKYK**ANWT**VTVIHPKGTAKAVSNGIEVNGDGEISGDWITSKFLTPRMSYLLAVMVSEFEYIEGETKTGVFRFIWRSRPEAKMTQYALQSGIKCIEFYE
Hc H11-4 DGRMVMPCDEPKYK**ANWT**VTVIHPKGTAKAASNSIEINGEGDVSGDWITSKFFTPRMSYLLAVFISEFDFVEGRTKQDVFRFIWRSRPEAKMTKYALESIGIKCIEFYE
Hc H11-2 DARRIAPCFDEPKYKAWTIVTVVHPKGTAKAASNGIEANGELQGDWITSKFFTPRMSYLLAII VCEFEYIEGKTETGVFRFIWRSRPEAKMTAYALDAGIRCLFYE
Hc H11-1 DARLMVPCFDEPTFK**ANWT**VTVIHPKGTSAVNSGIEK-GEDEVSGDWITRFDPTPRMSYLLALVISEFKYIEN**YNT**KSGVFRFIWARPEAKMTEYAMIAGIKCLDYE
Hc H11-5 DARRLVPCLEDEPSFKASWTVTVIHPKGTAKAVSNGIETNGKGEVSGDWIISKFFTPRMSYLLAVVSEFDYIEGFTKSGVFRFIWRSRPEAK**NMT**AYARDAGIRCLFYE

Hc H11 DFFDIRFPLKKQDMIALPDFSA**GAMEN**WGLITYRENSLLYDDR FYAPMKN--QRIARIVA**HELAH**QWFGDLVTMKWDDNLWLNEGFAFTEF IGAGQITQDDARMRNYFL
Hc H11-4 DFFDIKFPPLKKQDMIALPDFSA**GAMEN**WGLITYRENSLLYDEKFGYPTNK--RRVAVVA**HELAH**QWFGDLVTMKWDDDLWLNEGFAFTEFVEYIGADQIGDHYFNMPDFFL
Hc H11-2 DFFDIKFPLEKQDMIALPDFTA**GAMEN**WGLITYRENSLLYDEKFIYAPMKN--QRVALVVA**HELAH**QWFGDLVTMKWDDTLWLNEGFAFTEFVEYIGADQISHNNFRQDFFL
Hc H11-1 DFFGKFPPLPKQDMIALPDFSS**GAMEN**WGLITYRENSVLYDENLYGPMKN--ERVAEVIA**HELAH**QWFGDLVTMKWDDNLWLNEGFAFTEFVEYIGADFISDGLWEMKDFFL
Hc H11-5 NFFDIKFPPLKKQDMIALPDFS**GAMEN**WGLITYRENSLLYDDRYTPIIQATQLVALVVA**HELAH**QWFGDLVTMKWDDDLWLNEGFAFTEFVEYIGTDEIN**NT**IRMDDFFL

Hc H11 IDVLERALKADSVASSHPLSFRIDKAAEVEEAFDDITYAKGASVLTMLRALIGEEKHKHAVSQYLKFSYSNAEATDLWAVFDEVVTDVEGPDGKPKMKTTEFASQWTT--
Hc H11-4 IGALERALKADSAASSHPLSFRIDKAVEVEEAFDDISYAKGASITMLRALIGEDKHKHAVTQYLKFSYSNAQASDLWEVDFDEVVTDIRGPDGKPKMKTTEFADQWTT--
Hc H11-2 LDGMDRGMRASSAASSHPLSFRIDKAAEVAEAFDDISYAKGASVLTMLRALIGEDNRYNAVQYLKFSYSNAQAADLWNVFNEVVKGVKGPDGVMKIDQFTDQWTY--
Hc H11-1 LAPYTSGITADAVASSHPLSFRIDKAAADVSEAFDDITYRKGASVLMQLLNLVGDENFKQSVSRYLKKFSYDAAAEDLWAAFDQVQGITGPNGGPLKMSEFAPQWTT--
Hc H11-5 PNVLVKALDADAVSSTHPLSFRVDKAAEVEEAFDRITYEKGASVLMQLQALIGQKNYKQAVTQYLKFSYSNAQASDLWVDFDEVVTDVKGPDGKPKMKTTEFASQWTTQV

Hc H11 QMGFPVIVSAEFNSTTLKLTQSRYEANKDAVEKEKYRHPKYGFKWDIPLWYQEGDKKEIKRTWLRDRDEPLYLHVSDAGAPFVFNADRYGFYRQNHNDANGWKKIKKQLKDN
Hc H11-4 QMGFPVIVTVEAF**NAT**SVKISQSRFKTKNDAKEPEKYRHPKYGFKWDIPLWYQEGDNKQVQVWIRREPLYLHVNDLSKPFVFNADRHGFYRQNYDADGWRKIKKQLRDN
Hc H11-2 QMGYPVVKVEEFNATSLKVTQSRKYTKNDALEPEKYRHPKYGFKWDVPLWYQEGNSKEVKTWLRDRDEPLYLHVNNRDISLVFNADRHGFYRQNYDANGWKKIKKQLKDN
Hc H11-1 QMGFPVIVTVEAF**NAT**SVKISQSRFKTKNDAKEPEKYRHPKYGFKWDVPLWYQEGDNKQVQVWIRREPLYLHVNDLSKPFVFNADRHGFYRQNYDADGWRKIKKQLRDN
Hc H11-5 QMGFPVIVTVEAF**NAT**SVKISQSRFKTKNDAKEPEKYRHPKYGFKWDVPLWYQEGDNKQVQVWIRREPLYLHVNDLSKPFVFNADRHGFYRQNYDADGWRKIKKQLRDN

Hc H11 HEVYSPRTRNAIISDAFAAAATDAIEYETVFELLNYAEKETEYLPLEIAMSGISSILKYFGTEPEAKPAQTYMMNLIKPMYKSSIDFIANNYRNDKLFQINLQKDVID
Hc H11-4 HKVFSRTRNAIISDAFALASVNAIEYETVFELLKYAVNEEEFIPWTEAISGIFAVLKFFGNEPEKPAEAYMMKILEPMYKSSDLGYIAAKYKDDQLFSKINLQKDIID
Hc H11-2 HKVFGPRTRNAIISDAFAAATIDAIDYETVFELLEYAKNEEEFLPWKEALSGMFAVLKFFGNEPETKPARAYMMSILEP**MYNKS**SIDYIVKNYLDLFTKINTQKDIID
Hc H11-1 YKVYGPTRNALISDAFAAAAVEEMDYETVFEMLYTVNEEDYLPWKEAISGFNTILDFFGSEPEQWASEYMRKLMKPIYDKSSIKFIAENYKDKLFFKNNLQIAVIS
Hc H11-5 HKVCSARTRNAIGDAFAAALIDELEYETVFLLKLEYAKNEEEYLPWTEAISGFYAILDFFGNEPESISAKAFMKNLIKPMYKTSMKYIADNYENDSLFFEVNLQTSIID

Hc H11 MFCALGSQDCRKKYKFLDDEVMNCRDGGAAATECVRIAAPLRSSVYCYGVKEGGDYASDKVMELYTAETLALEKDFLRLALGCHKDVTALKGLLLRALDRNSSFVRMQD
Hc H11-4 AYCALSQDCMKKYKDFDREVMNKNCDGDEATKCVSVAAPLRSSYCYGVKAGGTAFYAEKVKALYEEETVQLEKDMLLRALGCHRVDVTALKGLLLLAVDRNSSFVRLQD
Hc H11-2 AYCALSQDCIKQYKDFYDEVMPKCKAGEAATKCVKVSAPLRANVYCYGVQEGGEEAFYAEKVMGLYLAEDVQLEKGLIFKALACHKDVDTALKGLLLRALDRKSSFVRLQD
Hc H11-1 TYCALGKCELEEMKLFDEEVMKCRPGQATDCVKVTAPLRKTVYCYGVQEGGDEAFDKVMELYNAEQVQLEKDSLREALGCHKDVTALKGLLLRALDRNSSFVRLQD
Hc H11-5 AYCFLGARECIKNYADLFDKEMKCKDGDKASKCVSIAAPLRKAYCYGVKEGGEAFAFDKVMKLYAENVQLEKDVLLQGLGCHKDITALKRLLLLALDRNSSFVRLQD

Hc H11 IPSAFNDVAANPIGGEFIFNFLIERWPDIIESIGTKHTYVEKVI PACTSGIRSQQQIDQLKLNQKNGMNRQFGAFDKAIERAQRNDVWIKKHFKLAAFFKATL-
Hc H11-4 IPNAFQAVANPVGEEFMFNFLIERWGDIGSISGSEPTYVERVIPPCTSGIRSKQIDQLRNLHNGIHAQEYSTFVKEIERAEHKVDWIKKHFKKLAAFFKATL-
Hc H11-2 VPTAFRAVSENVPVGEFMFNFLMERWEEITASLETEHRAVDKVVGACCTGIRSQQQIDQLKLNQKNAQAKKFGSFTQIEIEKGEHKIAWIKKHFKLSEFFKRARS-
Hc H11-1 AHDVFNIVSRNPVGNELFNFLTERWEEILESLSIRHRSVDRVIKACTRGLRSREQVQQLKNLYKNDKRAREYGAFGGAIERSEHRVKWIEKHFRKLAFFKKSNS-
Hc H11-5 VAAVYAVSNPIGKEFMFNFLERWEEILEGLTTEHRAVERVIKACTAGIRLEQQIDQLRSLQKNGEHAREYGAFGDQIERAEHKINWIKKHMRKLSDFFEKSTR-