| Gene | Acc. no. | Gene | Acc. no. | Gene | | Acc. no. |
| --- | --- | --- | --- | --- | --- | --- |
| **OBPs** | | | | | | |
| CpunOBP1 | GEDO01000008.1 | OfurOBP1 | LC027685.1  LC027685.1  LC027685.1  LC027685.1    LC027685.1 | CmedOBP1 | | JN867059.1 |
| CpunOBP2 | GEDO01000009.1  GEDO01000009.1  GEDO01000009.1 | OfurOBP2 | LC027686.1 | CmedOBP2 | | JN867061.1 |
| CpunOBP3 | GEDO01000010.1 | OfurOBP3 | LC027687.1  LC027687.1  LC027687.1LC027687.1LC027687.1 | CmedOBP3 | | KP975114.1 |
| CpunOBP4 | GEDO01000011.1 | OfurOBP4 | LC027688.1 | CmedOBP4 | | KP975115.1 |
| CpunOBP5 | GEDO01000012.1 | OfurOBP5 | LC027689.1 | CmedOBP5 | | KP975116.1 |
| CpunOBP6 | GEDO01000013.1  GEDO01000013.1  GEDO01000013.1 | OfurOBP6 | LC027690.1 | CmedOBP6 | | KP975117.1 |
| CpunOBP7 | GEDO01000014.1  GEDO01000014.1 | OfurOBP7 | LC027691.1 | CmedOBP7 | | KP975118.1 |
| CpunOBP8 | GEDO01000015.1 | OfurOBP8 | LC027692.1 | CmedOBP8 | | KP975119.1 |
| **CSPs** |  |  |  |  |  | |
| OfurCSP1 | LC027702.1 | BmorCSP1 | NM\_001043600.1 | CmedCSP1 | KC507178.1 | |
| OfurCSP2 | LC027703.1 | BmorCSP2 | NM\_001098308.1 | CmedCSP2 | KC507180.1 | |
| OfurCSP3 | LC027704.1 | BmorCSP3 | NM\_001043598.2 | CmedCSP3 | KC507182.1 | |
| OfurCSP4 | LC027705.1 | BmorCSP4 | NM\_001043587.2 | CmedCSP4 | KM365188.1 | |
| OfurCSP5 | LC027706.1 | BmorCSP5 | NM\_001043597.1 | CmedCSP5 | KM365189.1 | |
| OfurCSP6 | LC027707.1 | BmorCSP6 | NM\_001043935.2 | CmedCSP6 | KM365190.1 | |
| OfurCSP7 | LC027708.1 | BmorCSP7 | NM\_001043603.1 | CmedCSP7 | KM365191.1 | |
| OfurCSP8 | LC027709.1 | BmorCSP8 | NM\_001043602.1 | CmedCSP8 | KM365192.1 | |
| OfurCSP9 | LC027710.1 | BmorCSP9 | NM\_001043604.1 | CmedCSP9 | KM365193.1 | |
| OfurCSP10 | LC027711.1 | BmorCSP10 | NM\_001043599.1 | CmedCSP10 | KM365194.1 | |
| OfurCSP11 | LC027712.1 | BmorCSP11 | NM\_001098309.1 | CmedCSP11 | KM365195.1 | |
| OfurCSP12 | LC027713.1 | BmorCSP12 | NM\_001098310.1 | CmedCSP12 | KM365196.1 | |
| OfurCSP13 | LC027714.1 | BmorCSP13 | NM\_001043715.2 | CmedCSP13 | KM365197.1 | |
| OfurCSP14 | LC027715.1 | BmorCSP14 | NM\_001043727.2 | CmedCSP14 | KM365198.1 | |
| **ORs** |  |  |  |  |  | |
| CpunOR1 | KX084452.1 | CpunOR32 | KX084482.1 | CmedORco | KP975160.1 | |
| CpunOR2 | KX084453.1 | CpunOR33 | KX084483.1 | HassOR3 | GQ165723.1 | |
| CpunOR3 | KX084454.1 | CpunOR34 | KX084484.1 | HassOR2 | GQ165722.1 | |
| CpunOR4 | KX084455.1 | CpunOR35 | KX084484.1 | HassOR1 | GQ165721.1 | |
| CpunOR5 | KX084456.1 | CmedOR3 | KP975138.1 | HassOR83b | EU057178.2 | |
| CpunOR6 | KX084457.1 | CmedOR4 | KP975139.1 | HassOR20 | JX982547.1 | |
| CpunOR8 | KX084459.1 | CmedOR6 | KP975141.1 | HassOR17 | JX982545.1 | |
| CpunOR9 | KX084460.1 | CmedOR23 | KP975158.1 | HassOR14b | JX982544.1 | |
| CpunOR10 | KX084461.1 | CmedOR1 | KP975136.1 | HassOR12 | JX982543.1 | |
| CpunOR11 | KX084462.1 | CmedOR2 | KP975137.1 | HassOR10 | JX982542.1 | |
| CpunOR12 | KX084463.1 | CmedOR5 | KP975140.1 | HassOR9 | JX982541.1 | |
| CpunOR13 | KX084464.1 | CmedOR7 | KP975142.1 | HassOR7 | JX982540.1 | |
| CpunOR14 | KX084465.1 | CmedOR8 | KP975143.1 | HassOR6 | JX982539.1 | |
| CpunOR15 | KX084466.1 | CmedOR9 | KP975144.1 | HassOR21 | KJ542673.1 | |
| CpunOR16 | KX084467.1 | CmedOR10 | KP975145.1 | HassOR33 | KJ542684.1 | |
| CpunOR18 | KX084469.1 | CmedOR11 | KP975146.1 | HassOR38 | KJ542688.1 | |
| CpunOR19 | KX084470.1 | CmedOR12 | KP975147.1 | HassOR40 | KJ542690.1 | |
| CpunOR20 | KX084471.1 | CmedOR13 | KP975148.1 | HarmOR14 | KF768668.1 | |
| CpunOR21 | KX084472.1 | CmedOR14 | KP975149.1 | HarmOR4 | KF768659.1 | |
| CpunOR23 | KX084473.1 | CmedOR15 | KP975150.1 | HarmOR20 | KF768674.1 | |
| CpunOR24 | KX084474.1 | CmedOR16 | KP975151.1 | HarmOR13 | KF768667.1 | |
| CpunOR25 | KX084475.1 | CmedOR17 | KP975152.1  KP975152.1 | HarmOR11 | KF768665.1 | |
| CpunOR26 | KX084476.1 | CmedOR18 | KP975153.1 | HarmOR18 | KF768672.1 | |
| CpunOR27 | KX084477.1 | CmedOR19 | KP975154.1 | HarmOR17 | KF768671.1 | |
| CpunOR28 | KX084478.1 | CmedOR20 | KP975155.1 | HarmOR14a | JX982530.1 | |
| CpunOR29 | KX084479.1 | CmedOR21 | KP975156.1 | HarmOR29 | KF768683.1 | |
| CpunOR30 | KX084480.1 | CmedOR22 | KP975157.1 | HarmOR50 | KF768702.1 | |
| CpunOR31 | KX084481.1 | CmedOR24 | KP975159.1 | HarmOR27 | KF768682.1 | |
| **IRs** |  |  |  |  |  | |
| CpunIR1 | KX084509.1 | DmelIR87a | NM\_142033.2 | DhouIR75p | KF487720.1 | |
| CpunIR2 | KX084510.1 | DmelIR40a | NM\_001273758.2 | DhouIR75d | KF487719.1 | |
| CpunIR3 | KX084511.1 | DmelIR11a | NM\_132567.1 | DhouIR41a | KF487718.1 | |
| CpunIR4 | KX084512.1 | DmelIR84a | NM\_141463.2 | DhouIR76b | KF487716.1 | |
| CpunIR5 | KX084513.1 | DmelIR85a | NM\_141576.2 | DhouIR21a | KF487715.1 | |
| CpunIR6 | KX084514.1 | DmelIR54a | NM\_137415.3 | HassIR25a | KJ542744.1 | |
| CpunIR7 | KX084515.1 | DmelIR68b | NM\_140291.1 | HassIR2 | KJ542738.1 | |
| CpunIR8 | KX084516.1 | DmelIR75a | KX694388.1 | HassIR7d.3 | KJ542741.1 | |
| CpunIR25a | KX084508.1 | DmelIR60a | NM\_138057.1 | HassIR8a | KJ542742.1 | |
| DmelIR25a | HQ600588.1 | DmelIR48b | NM\_136853.1 | HassIR21a | KJ542743.1 | |
| DmelIR8a | NM\_167185.1 | DmelIR7d | NM\_001144703.1 | HassIR75p.1 | KJ542752.1 | |
| DmelIR76b | NM\_140919.2 | DmelIR7a | NM\_132178.1 | HassIR75q.1 | KJ542754.1 | |
| DmelIR21a | NM\_001103573.2 | DmelIR67c | NM\_168407.1 | HassIR75q.2 | KJ542755.1 | |
| DmelIR64a | NM\_139705.1 | DhouIR25a | KF487714.1 | HassIR76b | KJ542756.1 | |
| DmelIR76a | NM\_001144510.3 | DhouIR8a | KF487713.1 | HassIR75d | KJ542758.1 | |
| DmelIR93a | NM\_142667.3 | DhouIR75q2 | KF487721.1 | HassIR93a | KJ542759.1 | |
| **GRs** |  |  |  |  |  | |
| CpunGR1 | KX084517.1 | HassGR1 | KJ542710.1 | HarmGR1 | JX982535.1 | |
| CpunGR2 | KX084518.1 | HassGR2 | KJ542711.1 | HarmGR2 | KF768714.1 | |
| CpunGR3 | KX084519.1 | HassGR3 | KJ542712.1 | HarmGR3 | KF768715.1 | |
| **SNMPs** |  |  |  |  |  | |
| OfurSNMP1 | HM044390.1 | CsupSNMP1 | JX401524.1 | CmedSNMP1 | JN867063.1 | |
| OfurSNMP2 | HM044393.1 | CsupSNMP2 | JX401525.1 | CmedSNMP2 | JN867064.1 | |

**OBPs**

>HvitOBP1

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>CpunOBP1

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>OfurOBP1

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>CmedOBP1

MDGKNLPSGVFLIILVILLSSDFSFGMTRQQLKNSGKIMKKSCMPKNDVTEDQIGEIEQGKFIEERNVMCYVACVYTMTQVVKNNKLSYEAVVKQVDMMFPPEMRDAVKAAAAHCKDVAKKHKDLCEASYWTAKCMYDFDPKNFVFP

>HvitOBP2

VLAAVSSVIGTAEVMSHVTAHFGKALEECRDESGLSPEVLEEFKHFWSEDFDVVHRELGCALICMSNKFSLLQDDTRIHHVNMHDYVKSFPNGEVLSARMVELLHNCEKKFDDVTDDCSRTVKVAACFKVDAKKEGIAPEVAMIEAVMEKY

>OfurOBP2

MTKGTDLFLLLLAFFISSSDAMTRQQLKNSGKMLRKNCLTKTGVAEDLISGIEKGKFIEDRNVMCYIACIYQMTQVVKNNKLNYEASIKQVDMMYPNDLKESVKKSIEKCKTVSDKYKDLCEASYWTAKCIYEDNPKDFIFA

>CmedOBP2

MLLVILAKFLMVLAMCNAMTMKQIKNTGKMMRKSCQPKNNVADEKIDPLGDGVFIDEKEVKCYMACIMKMANTMKNGKPNYEAAIKQVDLLLPEEIKQPAKEALAACKKVPDAHKDPCDAAFHVTKCIYNHNPSIFFFP

>CpunOBP2

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>HvitOBP3

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>CpunOBP3

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>OfurOBP3

MAKFLVLCLGVLAAAISSTKALTSEELLKIEADMLVYVKDCADKFSVSDDDLKEAKEKENVDNISPCFLACVFKNANLINDKGLYDPEVVTGKLSDKYLSNDEDKAKMAEIAKDCTKVNDESVSDGAEGCERAKHLLVCFAKHKNALKGGR

>CmedOBP3

MLVKSVLILSTVLLSSDAAFVDTLKKCGKNDGECHREMIQNVLKEASKPGIQELNIPPFDPVVLKDVSIPILNVVDLELADGVVRGMRNCVVNSFVTAMEKGKASMDITCDLVVKGKYKAFSNSPLVKSVLGADKLRGDGNAKLKIEQLNVKFDFHFFIEERDGETYIKCKDKKLDYKYEVKGKVVFAADHLYLDDKDASEVIVNLLNQNWRLVVESAGQQLMGRAMDRIKVFFTSFFGSVPTKYYIIDDLTPYVK

>HvitOBP4

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>CpunOBP4

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>OfurOBP4

MLRVALVVSIFVLSLGGLYCTPVQTSTKPDDSSAKHDDRSAKPVDSSAKPDDSSVKTKEVMLSSGQDMSSSEDANNTVDLMTFMNQCNESFRTDMAYIDALMESGSFPDETDRTPKCYVRCVLEHVGVASEEGAFDAARASEVFAGERGGRAMTDVQDLAEACADRNESCKCERSYRFMRCLMEAEIKEYSSN

>CmedOBP4

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DGVPEKNENGTFVRITDFYMRPDVGSMKSHLTNDNPDSRDLTELGNRFTNQNWRLLYRELLPYAQANWNKIGISVANKIFLKITYDQLFPSKS

>HvitOBP5

MLLISLAKFLVILAICEAMTMKQIKNTGKMMRKSCQPKNNVADEKIDPLSEGVFIDEKEVKCYMACIMKMANTMKNGKPSYEAAIKQIDLLLPEDLKEPAKAAVTACKKVPDDYKDTCDAAFHVTKCIYNHNPSIFFFP

>CmedOBP5

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>OfurOBP5

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>CpunOBP5

MISNYKYIQWFGLFGTCSWKSLKMIRAVTLFCGLFLMALTPNVDAMTEEQRAKIREHFETVGMQCIGDNPLSEEDITALRSKKAPSDSASCFLACMMKNVGVLDDSGMLQKETALELARKVFQDEEELQIISDYLHSCSPVNSAAVSDGAKGCERAMLAYKCMIENASKFGIDV

>HvitOBP6

IAVVILSVLPALVSCAGDGNIRLLEEDVAVAMKACADPTNSKGDDNANQRQRRSDDYPRIDNNENTGNQYSHERRNSTDMREQIYVLNATDYDYGAGKGGEKLVSTVPRPATGNRNYTVEMNINRTKRSEPLLNKPDMDQCLSQCIFANLQVVDSRGIPRETELWNKVQASVTSQQSRAALRDQIRACFQELQSEAEDNGCSYSNKLEKCLMLRFSDR

>CpunOBP6

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>OfurOBP6

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>CmedOBP6

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SGAAQTQSGGQKT

>HvitOBP7

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>CpunOBP7

MIHAVILFCGLLFVTWMPYSDAVTPEQRAKIGLHFHAVGMECIVDNPLAEEDVLAFRNRMPPPGPNGACFLACVLRRVGAMDDAGMMQRDSLLELARTVFHDEAELRSISDLLLSCSSVNSIEVSDGEKGCERAMLALKCMLEQASKANSLDEKNMIRDKFESVGEECIEKHPLSDEDIAALENKMPPPGRVGACFVACVMKNVGVMDDAGMLQKETALELAREAFDDEEELESIADFLHECSSSINSVAVSDGTEGCDRAILALKCMNEHESKFGLDL

>OfurOBP7

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>CmedOBP7

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EDLEL

>HvitOBP8

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>CpunOBP8

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>OfurOBP8

MAVKKSLLLCELLLVLILLLDTSFGMTRQQLKNSGKLMKKSCMPKNDVTEEQVGEIEQGKFIEDRNVMCYIACVYSMTQVVKNNKLSYEAVLKQVDMMFPPEMKDAVKAAATQCKDIAKKYKDICEASYWTAKCMYDFDAENFVFP

>CmedOBP8

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VGKFYAKDTKLMKKLEKNLDRCVEMSAAYRGDECALAARLNACTNDLMISNKHKIQVNY

**CSPs**

>HvitCSP1

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>BmorCSP1

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>CmedCSP1

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>OfurCSP1

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>HvitCSP2

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>BmorCSP2

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>CmedCSP2

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>OfurCSP2

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>HvitCSP3

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>BmorCSP3

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>CmedCSP3

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>OfurCSP3

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>HvitCSP4

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>BmorCSP4

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>CmedCSP4

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>OfurCSP4

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>HvitCSP5

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>BmorCSP5

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>CmedCSP5

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>OfurCSP5

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>HvitCSP6

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>BmorCSP6

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>CmedCSP6

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>OfurCSP6

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>HvitCSP7

TYTTKYDGVNLDEILSNNRLLTSYVNCLLEEGLCTPDGRELKKNLPDAIQTDCQKCTERQKMGADQVMEYIIDYRLDDWEKLEKLYNSDGSYKKKYLEKKQANN

>BmorCSP7

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>CmedCSP7

MMKFATALVLAVCVGLAVGETYSTENDDFDIEALVKNPEEFQKFSGCFLDKNECDAVSGDFKKDIPEAFEQACAKCTDAQKHLFNRFLSALKDKRPQDFEDFKKKYDPEAKYYAALEKAVAKA

>OfurCSP7

MKTFAICLLALVAVVSAYPQAKYTDRYDSINLDEIVGNRRLLVPYIKCILDQGKCSPEGKELKSHIKEALENYCAKCTETQRDGTRKVIGHLINNESEYWNQLTAKYDPQRKYVVKYEKELRTVS

>HvitCSP8

LVLVDVLPVRIVLVGQLGPQLRLVVDQVADDSLCAVSLGVCAFGAVVLERFLNVFQFFAVRGAPALVKRALHIWHKQAPVLQDLSQVYVVVLIGVFLS

>BmorCSP8

MKTILILCALVSVVVCRPEEYYSSQYDNFDVEQLVGNLRLLKNYAKCFLDQGPCTAEGTEFKKRIPEALRTKCAKCNPKQRHLIRTVVKAFQTKLPDLWEELAIKEDPKGQYKHEFTAFINAMD

>CmedCSP8

MKTQIIFLCVLGVIALVSCAPHQSYANQPETTPEEIMRVESQLPCVLNQGPCSELGLRIKMVLPEILTTRKCSTCTPEENAKVGRILYIMHEKFRHHLITLNNIYGKKQQSSNFHHSN

>OfurCSP8

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>HvitCSP9

AIADEKYTTEHDDFDVDTLATNPEELKKFSGCFLDKNECNEVAEHFKKDLPEVFAQACGKCTDAQKHLLKKFLDAIKEKLPEDYEDFKKKFDPEGKYFGDVEKAIN

>BmorCSP9

MRAVIFLYTCVFVVVGQDINAMMSMPKYDERYDYLDVDDIFRNKRLVRNYVDCLINAQRCTPEGKALKRILPEALRTKCIRCTERQKRTSVKVIRRLKNEYPEEWAKLASRWDPTGDFTRYFEDYLAKEHFNTIPGSGPTVNVLSLQTTPPPPPPPPSRPASVFTNPPPPVMSTSPRPVVLNRFRR

>CmedCSP9

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>OfurCSP9

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>HvitCSP10

KYTDRFDDINIDEITANRRLLVPYLKCVLDKGRCTAEGKELKLHVKDAMQTACKKCTDKQKAGARKVVNHIKDNEKEYWEELLQKYDPNNEYKGVYEPFLAGKD

>BmorCSP10

MACVAVTWARPESTYTDKWDNINVDEILESNRLLKGYVDCLLGKGRCTPDGKALKETLPDALEHECVKCTGKQKSGADKVIRHLVNKRPDLWKELAVKYDPDNIYQARYKDKIDAVKGSA

>CmedCSP10

MRSWLVLVLAVVVSCSAQHYNRYDNFNADSIIQNDRVLLAYYKCVMDKGPCTKDGKNFKRVLPETLSTACGRCSAMQKLVVRKLLLGIRSKSEPRFLELLDKYDPERSNREALYNFLVTGN

>OfurCSP10

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>HvitCSP11

MRAVIFFSCLVAAVFAADKYNSKYDNFDVDTLISNDRLLKAYINCFLEKGRCTPEGADFRKTLPEAVETTCSKCTEKQKVNIRKVIKAIQQKHPKQWDELVKKNDPSGKHRASFDKFIQG

>BmorCSP11

MKLTSFLLVGMAMVSAEFYSSRYDDFDVKPLVENDRILQSYTNCFLDKGPCTPDAKEFKKVIPEALETTCGKCSPKQKQLIKTVIKAVIERHPEAWEELVNKYDKDRKFRPSFDKFINEDD

>CmedCSP11

NLFLFTCVLFVVSGTQEELYDRKYDYFDIETLVQNPRLLKKYMDCFLDKGPCTPIGRVFKLALPEVISTSCSKCTPAQ

>OfurCSP11

MRHIIILLAVVALVTQSFADEETEKKEEKKEEKKEEQTDEKKYTDRFDDINFEEIIANRRLLVPYLKCVLDKGRCTPEGKELKAHVKDAMQTACEKCTDKQKTGARKVVNHIRDNEKEYWEELINKYDPKGEFKSIYEPFLAAKE

>HvitCSP12

PKYDERYDYLDVDALFNSKRLVRNYVDCLISAQRCTPEGKQLKRVLPEALRTKCIRCTERQKKTAVKVIKRLKYEYPEEWAKVASRWDPTGDFTRYFEEFLAKEQFNTISGSSNSNEDTGPSSF

>BmorCSP12

MFMLFIISFIIVPVLKCCGTETSTYTTQYDEVDIKEIMGNERLLVAYIGCLLDKNPCTPEGKELKRNIPDALQSDCSKCSDKQRENADAWIEFMIDNRPEDWTKLEER

>CmedCSP12

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>OfurCSP12

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>HvitCSP13

QTPRPQVSDTALEDALSDKRFIQRQLKCALGEAPCDPIGKRLKTLAPLVLRGACPQCSPQETKQIQRTLSYVQRNYPQQWAKIVRQYAG

>BmorCSP13

MKLLLVFLGLFLAVLAQDKYEPIDDSFDASEVLSNERLLKSYTKCLLNQGPCTAELKKIKDKIPEALETHCAKCTDKQKQMAKQLAQGIKKTHPELWDEFITFYDPQGKYQTSFKDFLES

>CmedCSP13

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>OfurCSP13

MRAVVFLSCLVVVLAADKYNSKYDNFDVETLISNDRLLKAYINCFLEKGRCTPEGADFRKALPEAVETTCAKCTEKQKNNIRKVIRAIQQKHPKQWEELVKKTDPSGKHRAGFDKFIQSN

>HvitCSP14

SETYTDRYDTVDLDEVLSNKRLTVAYIKCMLEQGRCTSEGRELKSHIVEALQNGCEKCTKAQREGMRRVMKHLIKYENNYWQQLVEKYDPTRTFTKKYEKELSSL

>BmorCSP14

MKSSLFCVLVLTVVVSSSRQQSYPRNDNININAILQNDRILLGYFKCVMDRGPCTKDGKTFKRALPEALPTACARCSNKQKAAFRTLLLAIRARSEPSFLELLDKYDPSRSNRELLYTFLATGL

>CmedCSP14

MQIQVLLLVVAAAACAYAAETAHPTVSDTALDDALNDKRFIQRQLKCALGEGPCDPIGKRLKTLAPLVLRGACPQCSSQETKQIQRTLSYVQRNYPQQWAKIVRQYAG

>OfurCSP14

MWIQLAILATFVSIVITEMGPPGIERTFSDGVTSRGYRVVYGDEDLTVINEVVGNMEKNDILKAKASLNEAIQPLPAGDVKCLMSADRYCSVEMRKVKGVLIQALKNDCEKCSNTEKDTAGRVAASMMTYDPVGWKLFLTRYDGLSKIQRILG

**ORs**

>HvitOR1

LHYRLLRYLGLGWWHDPGEGDTRNFFGWYLYYAIVTQLVWVVGFVALETIDPFIGEKDLDRFMFSLSFVITHDLTFIKLCIFYFRNEEIQDIVHTLEIVLYNFYQNNKKNHATLKISKIFTGSFVFFGWITIGNTNVYGTIQDIRWKAQTAKLNDTALIPPRTLPQPIYIPWNYQADASYISTFILETVGLLWTGHIVMTVDTFIGSVILHMSTQFAILQEALITAYDRTIYKLHASIRNNNDEMNDTTEDGEQFIDMDDIENTVKAQCSQIQIDSAIEDTLKNCFRQHQVLISCVEKFATTYSYGFMTQLLSSMAAICVIMVQVSQDASSFKSIRLVTSLAFFIAMIIQLALQCFTANELTLQASRVADAVMHSKWERMSPSHRRLLMMTMMRAQRPLRLSAAGFANMNNDCFLAIMKAAYSYYAVLSQKQTM

>HvitOrco

MMTKVQAQGLVSDLMPNIKLMQAAGHFLFNYHADNSGMSVLLRKIYSSTHAFLIVINFLCMVANMAQYSEEVNELTANTITVLFFAHSLIKMLFFALNSKSFYRTLAVWNQSNSHPLFTESDSRYHQLALSKMRRLLYFISSVTVVAIVSWITITFFGESVRLIADKETNDTMTEPAPRLPLKAWYPFNAMSGTMYVVAFVYQVYWLIFSMSLANLMDVMFCSWLIFACEQLQHLKAIMKPLMELSASLDTYRPNTAELFRASSTEKSEKIPDPVDMDIRGIYSTQQDFGMTLRGAGGRLQNFGPTAPNNPNGLTQKQEMLARSAIKYWVERHKHVVRLVASIGDTYGTALLFHMLVSTITLTLLAYQATKINGINVYAFSTIGYLSYTLGQVFHFCIFGNRLIEESSSVMEAAYSCQWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>HvitOR3

EMMFVVHGVLVEDYSFATECFSYVILLGVIPPIYGSIVYHQSSLLELIHNMNEDFKFICNIGAKYRNQFLQRQLLIWKLCFAWLLFTSFIAVSFLSMAIVPLIYLSLLAEQNEHTVRPLIFPMWLPKDDPYRTPNYEIFFFLQMNFCFMYIQSFVVYVY

>HvitOR4

FEFANLFVVTWLELINMLQTAQGGSFQDAIEMFRMMPCVGYLLLAMAKSYKIVYHRPVYENLVSELRGMWPQGQVSDEEHLIISTALRHLNYIIQGYYWCNNVLLVIFLSPPFVEILKRLLGHDVPLILPFFYWFPFDPFQRGYYEVILAFQTWHGLITIWFMVCGDLLFCIFLSHITTQFDLLSVRIKKLVYVPIDRQLLPEYPLGHYSVEHIRKDKRLTELLSDEDWEQKYQRDINDIVKRHHALIRLAGDVESLFSFALLVNFFNSSIIICFCGFCCIIVERWNEMVYKSFLTTALSQTWLLCWYGQRLLESSKGVSDALYNSGWYKSSKKIRSTIFMMIHRAQKEVHVTTYGFSVISLSSYTTIIKTAWSYFTLLLNIYKQ

>HvitOR5

GPHLRLLGLTGLWHPDDHSKVTKFKRFLFYVTITFFFSQYVKCLINFNAKSLMLILQYAPFHMGIVKTCFFQKDYEKWEKFISYMSSIERKQKASGDKTINSILDEYITRGRRVSYFFWALAFFSNFSIFTEPYQKNQVNENGSGVYLKIFDGYIPYSNEPPGYYVSMVIQTFLGHIVSAYVVGWDTLVCTVMIFFAGQQKISKLCCSRMKVYDNPEQTHRNIVNCHHFHITLVQHQKIFNGLISPAMFVYLVVISVNLGVCIIQIAQIKDDLATLISSCVFVMACLIQLFLFYWHSNEVTNASSFVSYGIFESSWVDMDVRCQREVALLGLATRKQLVFKAGPFNEMSMKTFIAILRASYSFYTLLNETN

>HvitOR6

FISLFCHFKIDYLLVGVYFVLRYWAMTALCGQLVVMGNDCTFWRILNLFNYFLSYVSFNDINSFLLIFCLTVYGIRKSMVDNNTFLNFCRCVNPVGNSYLVYP

>HvitOR7

IFLYQFFGLFVLITCNVNIDTFICGLLLMAITQYKVLNWKLSNLCLKPTELSLNREEQDKILMNRLNKYLKHYDHVLRYCRDMQKIMGFSIFAQFGTGAATICVSMCTFLRPMTNEDWMFMGCYIGAMTLEIFLPGLLGAQLTQESADLAYAVYCSDWISQPENFKRNLRLMVESANKPIVVTGLQMFSLSLETFASIIKMAYSFFTLLKNVQ

>HvitOR8

KNVFREIKMRLQDNSYDSLLWIVNIVPNLAGFSIRGDTISALFWIVHLTMLTYLYGVGSLVYQIRFARTPGDYIKSYVNVSLIVLIANNSYWFIKKRPLLKLTLGELCESDELSRSNPIFRTIHERAIFRIKIIILTFYGFNLTNAIGVYLPHRVDVLNNYAMTPCVGMEPLSSSPNREICLTLLFLQEISIMTVVLNYQALLLLVIAHTALLYRLLSYEIMKLTEFDAVKYFNNPNVNILLPVLIRRHAIILRIIENLKALYSVPIGVNFGSNAVCMSLFFYLPLQEWLQFMPVLAYCFLVFFLYCFLCQRLTNAAEFFERAVYACGWESFTTKERKAVYFMLRQAQKPVEILAADIIPVNIATFATTLQAIFKLFT

>HvitOR9

SLEDPKKPLFGPNYWMLKKIGLILPESKLGKYFYIFIHELVSFFVFTQYMELYIIRSDLDLVLTNLKISMLSVVCIMKSNTFVFWQNTWKEIIDYLTEADKYERKTNDVTRKAILEKYTKYCRQMTRYYWMLVFTTFWTTSGTPLMRYTTSALYREHLSNGTELFPHIFSSWMPFDKYHSPGSWITVVWHVLLCAYGATIMAAYDTSIMVIMVFFGGKLELLRERCKQMLNMPEVEENTEAFEEKIRELHQTHVLILRYSRMFNSVLSPVMFIYIVMCSLMLCASAYQLTSAQNAAQKLLMAEYLIFGVAQLFIFCWHSNDVLIKNENVMIGPYESQWWRANLRQRKSVLLLAGQLRIRQVFTAGPFTNLTLSTFITILKGAYSYYTLLRK

>HvitOR10

ENPDLPLLGPNVKALKFWGLILPKSVVKKNIYLILHFLITFFVLTECIDIWFIKSDLQFLLTNLKITMLATISIIKVYTFISWRNSWSSIMDYVTKADIAQRNTDDSNKIKKIANVTTYCRKITYSYWILMYTTVVIVIFQPIFKYFFSPIYRENVKNGDGTYLQVISSWVPFDKNKLPGYLAASVYQTYASIYGGGWITAFDSNAIVIMVFFNTELELLRMDCANIFGTIDAPVSDEIAKERIKDCHRRHVDLVKYSRLFDSCLSSIMLLYMFVCTVMLCVTGFQITSETSAMQQFLTAEYLIFGIAQLFIYCWHSNNVFYASLLLNLGPYESLWWSRAVSHRKSLYILTAQLDKEIVFSAGPFTKLTVATFINILKGAYSYYTILSKSQMK

>HvitOR11

WKKLTHTKALEKSSGELEMAFFETVYRVSYITGISSVDNDIPYLVYGSTIKLLILLLVFSEIWYAFTLTTSLDEIAASINTTLIQFITVYRYWTMLYHREVFRRLASSMESPYFDTSTQKRKLLIEYWAKKNEGYLRLLLFLGNSTLAVWFVYPLLDDLEYNLFIAIRLPYDFCSPFLYAVTYIIGVTAFMYMSHFVMVNDIIMQAHLLHLVCQFAVLNDSLLNIVFDSERDLKGKCIDRNKLHENDEFVKIYLKRLRNMVHQHQNILGHVRELRNMLSGPMLGQLAGSGTLICFIGYEAATAAAENVTKCLMSLLFLSYNLFEFYIICRWGEEITVQSDRVGESAYCSGWESGMSVVPGVKSSLFLIVARANKPLMLTAGGMYNLSLMSYTSLVKASYSALTVLL

>HvitOR12

KQIDCFSLNIKFWKILGVWPGHIGWPHYKYYSKIFIGVFLIFYVFLLSLNFFYLPRQLDIFVEEMLFYFTELAVTSKILTFLQLRDKIMKILTTIESDTFQPDTEDGFKIIQKAKKFNTRYWKIIAAISITSNVTHVSAPMIAHILLPIDLEFPVCSYSFIPEYYQKKFVYPIYFYQSFGMNCHMLYNVNIDTFILGVMILAIAQLDLLDLKLRNLTNGISGEVVNDEGELVKKFNREIVHYGEIADFCGLIQDCFSATLFVQFSMASCIICTCLFRFTLPAPISYYVFLATYMLVMIGQIMVPCWFGTRIMDKSCTLSTAIYSSDWTSRTKGFKSSMRIFVERLKRPVSIIGGKMFPLSLETFTSIMNSAYSFFTLLRHM

>HvitOR13

QYMFLIFQLIYIFQVWGDMEAIVQASYLMFTQSCLCFKVAIFLFNPDNIRQLIAQMNSEIFKPQNLVHQNFLRDQATWIKRMLMGFMISAQCTCVLWAVRPLFDGIGRKFPFDMWMPLSPESSLQYIIGYVFQLMTISMSASMYFGVDSVAMPAVMFACAQVQIIKDKILRVSPVTLNVKAADRQKLFEDNHKRLNECIQQHQAVYTFTKLVEQTFHAYLLFQMSGCVGIFCMTSLRMLGIGWRSVQFFSSLTYMLVMFTQLFVCCKCGHELTSMTEELHREMYKCSWYEQDLNFKRKLCFTMMRMSRPIVIRAGYYIPLSRQTFVGILRMSYSYFAVLNQ

>HvitOR14

FGSLCLTGFKDWFEIINVAPNLGVVLMAVLKYTKIHSNQKVYDEIFTHFRDKFWEGVFNTDGHKKIVTKYTSFTKFVLRFVVYYSLPLVIIVNSFPRLIMFYENDVNGKESVYLYPFDGWYPFNKVKFYYVAYFWESLMTAVVIGIYTFTNMIHGSYTVFICMELKVLGNSMENLISSKDVDKIKKGINVRKTHADIKNRLRNIIIRHQFVTHIARELDNVLGDSMLLNYVFGAVFICLTVFTATVVDDLYKTLRYFSMFCSLMVEIFFQCIIGQVLSDHSEQLTESIYSADWPNADKESKTMLLIFLAGTQRPLQFTANGYLAMNLDSFSGICKLSYQLFNL

>HvitOR15

LDIYSQEFEAATCAALKDCARVSNIVNEYRVKFEKFVSPLLALRVVQVTLYLCMLLYSATLKFDMVTVEYLVAVALDTFVYCFYGNQIIIQAGRVSVAAYQSAWAAAGARARRLLLGVQLANRRAVAVRAGDFLPLDLHTFLV

>HvitOR16

LPYAVILPFSTDRWGTWLIAYVHSISCGFICVLYYTTVDALYCVLTCHICNNFEIISNELQYLDEDSVDQIDDLLKSHQYVVQLTNYLEDIFNLPNLFNVLVGSVVICALGFNLTMGARSQLPGCALFLSSVLLQILIMSVFGENIIRESRRVGEAAFLCEWYNMDEKSKKKLLILMTRSHKQQQLTAFKFSVISYASFTKIISTSWSYFTILKTVYKP

>HvitOR17

TLWIIFPVLYYVQGLPVEFPFWTHLDHTRPLVFVLLLMYSYYVTTLVGIANTTMDAFIGTVLYQCKTQLRILRINFETLMERAQDKVNEDPSVPYDVVLSKLFLECLHHYEQISKTNKRLQDIFGTAILVQFGIGGWILCMAAYKLISLNVLSIEFASMTLFITCILTELFLYCYYGNEVTVE

>HvitOR18

NFIHITATLFVVSQYVELWCIKSDLDLALRNLSVTMLSTVCVIKAGTFVMWQEHWKNVLQYVSNLEKDQLSRKDKVTDTIISEYTVYSRRVTYFYWSLVSATVLTVILAPFAGYISSDEYRARISAELAPYPEIMSSWVPFDRTRGIGYWASVLEHSLICFYGGGIVAIYDSSAVVLMAFFAGQLKLLSENCSRMFESDVVDMEQEMLKIAECHHHHKNLIKYSKILNSLLSPVMFLYVIICSLMICASAIQITTDGTTTMQRIWIAEYLMALIAQLFLYCWHSNEVSVMSDKVDDGIYKSSWWSRGVVMRRSVLLLAGQLRKNIVFTAGPFTKLNLPAFITILKGSYSYYTLLSNKED

>HvitOR19

VTKVLNVLNVLMVIVFDLCPLIVIAVKYFKTGQLELMLPFLDVYPFDSFDLRYWPFAYMHQIWSECIVLLQICAADYLFFTCCTYIRINFRLLQRQFEQVISSNSVSIVKPNKGELKARFDSLIGWHQEIISSANMLELVYSKSTLFNFLISSLVICLTGFNVTAINDVAYVMTFMIFLFMSLLQIYFLCYFGDLLMNSSVEVANAVYKSRWYLSDAGVGRSVALIQVRAQHPCKLTAAAFADVNLKAFMKILSTAWSYFALLQ

>HvitOR20

SGIRITKTKWRSSLEKLLDYYLYLFNFLWLYMDVCGEIYWLIEGIIIGKNFIDLSLTTPCITVSLLATSKSIFLYLNRDIVIKIINKLRDIHPETDVNEIELIEDNNKIDVEKKILEESTRFLNFVVLLQYYICALVVLAFPLMPVTSMAYDYYTKGHTEFKYPYLVKYFFDPCKLVIWPFVYVHHVISTVIVALNVFGSDTLFYAVCIYIQMHFQILCHRFENVVTQSPWQTKIYLTKALRRHQDLINLVDQAEVLYTKSTLFNIVTSSFLICLSGFIITMVEDLSVVVTFVTFLFMNLSQISLLCYFGDILMRSSTQISTAVYNSLWYETDEKTKKILFFILKRAQKPCKLTACNFADLNLTAFTTILSRSWSYFALLKTMYK

>HvitOR21

EAKREIAESLVLNTFCMRRIGISFEDPKNGWAFFGQKLMFVLSVCSICYHVFSEIMYIGLTLSNSPRVEDVVPLFHTFGYGALSIAKVFVLWYKKNVFKQLINELASIWPVPPLVDEAQLIKDRSLNALRIAHRWYFAVNVLGVWFYNLTPIGTYFYSLWQGHDTQIGFVWVSWYPFDKHKSFAHFAVYIFEIFAGQTCVWIMVSTDLLFSGMASHIGLLLRLLHRRLESLATEEQPEEQFYSEITANIKLHQRLIRYCSDLEVAFSLSNLVNIVLSSVNICCVVFVIVLLEPILAVSNKLFLGSALIQIGMLCWYADDIFHANADVTRAAYNSGWYRTSPRCRRALTFLIQRAQKPIAFTAMGFTDISLVTYSAILTRSYSYFALLYTMYN

>HvitOR22

VFHRVLSFAGIPIYAKKNWDSKKWLCFQIFNFIIGVLCFVFTTGFVVVNSSDLLIFIQGACIWTTGVIMTISLGVCFVFRIEFRSFLVEMAFEDRMLEMPLITYVIKLQEGKKLYELKQMVIDTQNKLFRYTKTVFIAYLASVWLVATLYLCSKIYEMYMTEDQSLRLIAFEMWFPWSLNDTRVYTFSYIFNAYSGYLCCVAYPGLQLTIIMLVGQTIRQLRILSFILMNLDDLVVEIKGKKDGEWQYYCTLIQSQCVDHYVKLKRFMNRLNVICRPFYLTLILVAIMLVCMCSVKIAISDKTAPDTMKYYAHEICFIMVVLMFCLLGQQVDSECALLERAVTENWYIFDKDHKINVRIFKIAVSQRMPIYIFGTITLSLPTFTWFIKTGMSFFTLVMSVLEE

>HvitOR23

MKTLMGNIKKKLDFLRPILPYGVTESWDNLDPRLYHAVHVYWLKFYGMWFNNFPPNSILFWVQMIYTIAVLWLVCFFPGIGEVVYLLKRRENIGDVAEGLYLFLSEMYTYFKVAVFWLNKDKVIELLQFLKCKEFHPVEVEHRDMIRKSIKTARFVMTYYSTMCVGAVSVGIIMPMTENFHILPTNVEYPYFDVYKSPAYQTLYIHHIYYKPATCIIDGAMDTVLAAFIASAIGQIEILAFNLRNFDLVADRRRRRAIEKNLHSSVWSKETHMRSVLRDCIIHHNSIIKYVAMIESAFSVASALQFMLSVMVLCLVGIQFLSIENPSGHPMQIMWMAIYLTCMLIEVFILCWFGDELIWKSISLRQAAFESPWFRTDQKTKIFIIIFLERCKRPLRVTAGKIFTLSLDTYTILINWSYKAFAVISNMKK

>HvitOR24

MKDYEILKLFCKKIYVVGSGNFWFEENIMGDDKNAYYRIYTILLFSVYCFMTVLEILAAVCGEFPEDEKSDSVTFAVSHSIVMIKIFSVVSNKKLIKRLNQNMIKVCEEYEEPKLMAEKYRIVKINVLAYFVIVYGSALCFVFEGLRKLFNGSHFVTIVTYYPTFADNSLLANSIRILTTIVLFMMMMTMIVSVDSFTMAYLIMFKYKIITLRHYLENLKEEFDKLNKPGNSKQAVERLTDGLVEGIIMHKELLGISKDIDRAFGTVIALQLCQSSGSAVSLLLQIANIA

>HvitOR25

YDCYGVFWFMFMLGSYIISQAVDMCLIWGNLPLMTGVAFVLFTNLAQAVKIFNTVRRRSLIQGIIRGADQVLRDVESDEAKAIVQSCNRETSLQQLIFCCLTFVTMLGWATSAEKNQLPLRAWYPYDTTSSPAYELTYIHQIGALYVAAFLNVGKDTLVTSLLAQCRCRLRLLGLSLRTLCRDLKLTESMLTHEQEAIVKGRLHRCVEQHQSALEAALQLQACFSEQVFAQFNVSLVIICVTAFQLVSVTDNPVRLIAMGTYLVNMMFQVFLYCYQGNQLSEESTEVAGAAYESPWYMMSTPLRRSLLIIMIRCRRTAKITAGSFTTLSLASFMAIIKTSYSMFTLLQQIDTKQ

>HvitOR26

SFIYLTLTGIGIYVTKSDSVTFLTNVDKTIVAYNYVLKIIIFFIKRDQIRILISEIIDSGDTIAEERKKLMAIHVVAISGMITTITGGFQILAHIKGEMAVDAWFPFDPMKDKKTLFMAGQILGVLFVVPCIYRAISIQGIVCSIIIYLCDQLKELQKRLKALKYTVENEPYMREEFKNIIKKHIRLMGYSKSIKEAFQEYFLIQNLAVTAELCLNALMVSIIGLDEKKHLITFMAFLMVALFNAYIFCHLGNVLMDDSAGIALAAYESSWTSWPVDMQKDLLIVITSAQKSFKLSAGGMAFMSMQTFAQALYNGYSMFAVLRDVVN

>HvitOR27

NNKILNDCICQHQAVIRFVKLVEHMFNVNIFFQMSGTVAIICIIGLSITSETPNTFHFYSSLNYLVFMLAQLYMYCWCGNELTAKSEMLRDELYMCPWYEQDIRFKKTLYIAMEAMKRPIVFRAGFYIPLSRPTFVSILRCSYSYFAVLNQASNK

>HvitOR28

RPLVFPFWAPGIDYAASPAYEIAFTFANIGVMACTYNYTFVLQTNIVWVRQIASKAEMIGMCILDLLEGIQPANNKQEKRDQARLINFRMREIISQHQAMYRLLDSYAKVYKKYLMFEQIVSSPVICMLAFCSAEKIDAGEIHVVMMVLCVGAIMVLFVPCYLCTFLRSKVTLICDACCEIRFWDAGPCIRPYLILIMQRCLRPLPLQSAGFQEASIKTFSNKMTSAYSLFNMLRQADLDF

>HvitOR29

RPLVFPFWAPGIDYAASPAYEIAFTFANIGVMACTYNYTFVLQTNIVWVRQIASKAEMIGMCILDLLEGIQPANNKQEKRDQARLINFRMREIISQHQAMYRLLDSYAKVYKKYLMFEQIVSSPVICMLAFCSAEKIDAGEIHVVMMVLCVGAIMVLFVPCYLCTFLRSKVTLICDACCEIRFWDAGPCIRPYLILIMQRCLRPLPLQSAGFQEASIKTFSNKMTSAYSLFNMLRQADLDF

>HvitOR30

IPKIFFVITLIFAIIYTYTYFFSMIWFVFVRCIETRDLVAAMIVFSLGITSEIGVTKYIFTLAYENKIRGIIKQYIECDALVVAGSRFSKNLLKALRNVKQRAVVYWIVIISNGIIYIMKPFVMPGRNPMEEIFILYKLEPPLEKPNLELANLMMALGSVFTCYLTANMAVFLIIISGYVEAQLLALSVELENIWDDAEVQHTNDSKVEDSTSDASASDSPDNNAINKIIGQRLCELIKVHAININLLLEIEVVFRGAFIVEFIVLSVGLIAQLLGGLQNTYMEVPFAVIQVAMDCLTGQRLMDACDVFEVAVYGCKWERYNASNMKTVLMMLMNSQKTLTLTAGGVAVLNFACLMSVFNSVYSAFTTLQSVM

>HvitOR31

FTCFLWSLHPTIMHLKGRRVEFPIWLPFDPNVNPQFYIAVLYVGIQTSWLGYSNTTIDAFIAFIFEQCRTQVSIMRHDLENLVRKSKEEASLSLVSWEDVYQKRFGYILLQHKEIINITVKAQQIFGGAIFYQFLVGGWILCTSAYRMVNLNVASVEFASMIMYILCILTEIFIYCYYGNELTYESGKLIESAYGLNWLELPVVHRKTLIILMEILKKPIRPMAGNLIPLSNSTFVSILRSSYSFYVFLKN

>HvitOR32

YWLVAATLTSIIFPIKALSIMGYYLYKGEFQFVPTFTMRYPDRLEDIKNTPFIFWFLFITCVTFGNYAATVYIGFDPLVPIFLLHICGQLDILSKRIVNIFSDNADKKDINEKFKQINLKLQELYRICHSIKVKYTILFEFNLKTTTFLLPLAMFQVVEGLREQRISLEFLSFCMSAILHFYLPCYYSDKLMERSENLREAIYSCGWEKYPDNNIRKTIMIMMTRTILPLGINTIFYPICLDTFAEMCRQAYTIFNLMNAAWS

>HvitOR33

YPQIMSSWFPFNIEKNPGYIVATLIQIVMSVQGAAVIAIFDTCAVAIMSFLKGQMILLKQKCMLIFENENEDYEQFLKNIKECHRHHNFLIEQYEIFDSLLSPIMFLYVLGCSMTICCSVVQLSLDETTYTQKLWVIQYTIGLVFQLFMYCWHGNDVFLESNDIDQGVYASYWWRATVQMRRQLILLAGKLNKPVYLNAGPFTCLSVPTFVSVIKGSYSFFTLFSQMQEEN

>HvitOR34

RKFGLGYCDLPTMMWNVSTLLRVITINIDSRQERKIPIYFYVLTLITYSSYLYIYLISMLWFVFWKSHETGDMTATMIVFSLGVSSEIGPCKMIYMMWNEELARKVVDGYIECDRAIIKGSRFFKNLLKGLRTVKKRALIFWIVIIGNGVIYILKPIITPGRHIMEDNFINLGLEPQFETPYYQIAFFLTSLGVYITCYLPANLTAFLIVLIGYTEVTLLALSRELLNLWGDAQEYYKKALHNRHSKEINIPSDIHEIDVYKQKIVNDYIQRRLYEIVRLHKTNIILINQIELVFRGAIAMEFILLIVGLLAILLGGLENTYIQMPFAMIQVSMDCLTGQRLIDACGIFENAVYDCKWENFNASNMKTVLLILQISQKTLNLSAGGCSKLSFTCLMTVIRSIYSAYT

>HvitOR35

GPPNKSVAAILWDWLQPVARLWGLITAVVMSGAGAELVVLGYEVAPALLVGAAIVLLLETMWAVALFVDLLGRRGEYTLPLRCWDFMRWSCARARAPFYACAATALLFSHLTLLATIAGGMLLVQAALRAVVPFSPYIGHGRHSPRAGSSLLSQHDSPVPSVFYNAAHSGE

>CmedOrco

MMTKVKAQGLVSDLMPNIKLMQAAGHFLFNYHSDNAGMSTLLRKIYASAHAVLIVIHYLCMAVNMAQYSEEVNELTANTITVLFFAHSVIKLLFFAINSKSFYRTLAVWNQSNSHPLFTESDARYQQLALTKMRRLLYFICGVTVLAVVSWITLTFFGESVRLIANKETNETLTEPAPRLPLKAWYPFDAMSGTMYVVAFVYQIYWLLFSMAMANLLDVMFCSWLIFACEQLQHLKAIMKPLMELSASLDTYRPNTAELFRASSTDKSEKVPDPVDMDIRGIYSTQQDFGMTLRGAGGRLQNFGTNGSNPNGLTQKQEMLARSAIKYWVERHKHVVRLVASIGDTYGTALLFHMLVSTITLTLLAYQATKINGINVYAFSTIGYLSYTLGQV

FHFCIFGNRLIEESSSVMEAAYSCQWYDGSEEAKTFVQIVCQQCQKALSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>CmedOR24

CALRIIAEDTQGMQIVSIIAYLLVMLSQLFICCWCGHELTASSEDLHSVMYKCVWYEQDVRFKRDLCFAMMRMSRPLVLRAGHY

>CmedOR22

ILCTSAYRIVNANPASIEFVSMIMYVMCIVIELALYCYYGNEITYESEKLMESAYAIDWLQMPINQRRSLIIFMERIKKPILPMAGSFIPLSNSTFISIIRSSFSFYAFLKNSEH

>CmedOR21

GGWILCMAAYKLISLNVLSIEFASMTLFITCILTELLLYCYYGNEVFEESDRVVQSVYGMEWLHAPLRFKKSLVLMMERAKRPLRPAAGSIIPLSLDTFVTIMKSSYSFYAVLRQTK

>CmedOR20

VLCLVGIQFLSIENPSSHPMQIMWMAIYLTCMLIEVFILCWFGDELIWKSIALRQAAFDGPWLGTDQKTTIFIVIFLERCKRPLRVTAGKIFTLSLDTYTILINWAYKAFAVISNMKK

>CmedOR19

NIKLHQRLIRYCNDLEVAFSLSNLINVVLSSVNICCVVFVIVLLEPFLAISNKLFLGSALIQIGMLCWYADQILHANADVASAAYNSRWYRTSARCRRALLFLIQRAQKPIAFTAMGFTDISLVTYSSILSKSYSYFAL

>CmedOR18

ALDRLRSCIIRHQSVLQSADSIQELFSASILAQVTVSMVIICVTAYQLAFETKDLVRFISMLAYFLCMTLQLFLYCYQGNQLSEESTQVAGAAYETPWWYCPAEFKRSLLMMMTRSRRMARVSAAGFTTLSLSAFMSIMKASYTFFTVLR

>CmedOR17

ENLKLEDLKDTSKEEFLKRQLNKCLIHYDLILKYCEHIQKVLDFSLFAQFGTAAATICISMCTFLRPMTNAYKIFIWFYIGSMMMEIFLPSLLGAELTAESLKLVPSAYSSDWIPRSESFKRSLRLLVERANRPIVITGLKMFPLSANTFIAIIKTAYSFFT

>CmedOR16

KSNVHLLKGLVKDHQYVLKLSQDLEEIFKLPNLYNVLVGSLEICALGFNLTIGDWPQVPGSLLFLLTVLLQILMMSVFGEKLITESRKVGDCAFYSQWYDMDQKSKKTILFIITRSQKQQQLTAYKFSVISYGSFTKIISTSWSYFTILRTVYTPPESLQVE

>CmedOR15

VVLTLYLNIQFLLLQEDLIKINLKDNKKRLEHSSAEDFDESAILEQKPKLRIEDFVRLHQDAILLSNKMNAACGQLNFTIMLFVTLIISLLAVSIKETSGIGNLVNCCGVTSVVMFNIYFLCYCSERLCSSSSGIAIAAAQTLWYNGDLRYQKIIKFIIVRAQ

>CmedOR14

YNLTAEQEKVVQERITKCVAEHQRALQSALLIQTCFSEQIFAQFNVSLVIICVTAFQLVSQTGNLVRLMSMGTYLLNMCFQVFLYCYEGNQLSEESSEIAGAAYEAPWYVMSPALRRSLLIIMTRSRRIARITAGSFTTLSLGSFMAIIKASYSLFTLLQQVEG

>CmedOR13

ISKETLNETYEAILSKLLLECIVHFQKIAETMALLQSVFGLAVLMQFTVGGWILCMAAYKIVSVDILSFEFASTTLFIVCILTELFLYCYYGNEVTVESDRVVESIYAMEWLHAPLRFKKSLVLMMERAKRPLRPAAGSIIPLSLDTFVTIMKSSYSFYAVLRQTK

>CmedOR12

RTISKETLNETYEAILSKLLLECIVHFQKIAETMALLQSVFGLAVLMQFTVGGWILCMAAYKIVSVDILSFEFASTTLFIVCILTELFLYCYYGNEVTVESDRVVESIYAMEWLHAPLRFKKSLVLMMERAKRPLRPAAGRVIPLSLNTFVTILKSSYTF

YAVLRQTK

>CmedOR11

FRLLSHRIQNVVSSPEQTRRGLKAAVRRHQELIDLVDQVELLYSKSTLFNIVTSSVLICLSGFIITVLDDISVVVTFATFLFMNLSQISLLCFFGDMLMRSSTQISSAVYHSLWYETDPRTKKSMLLILMRAQKPCKLTACNFADLNLTAFTTILSRSWS

YFALLKTMYK

>CmedOR10

HYDREMSHRFTEKKSHFDIYSPEFDAATYDALRDCARVCDVVNRYKNKFESFVSPLLALRVVQVTLYLCMLLYAATLKFDMVTVEYLAAVALDTYVYCFYGNQIILQADRVSTAAYQSAWHTMGARPRRLLLNILLANKRPVAVRAGSFLPMDLHTFVVIIKTSFSYYTLLVNVNEQK

>CmedOR9

EMLHIWSDANKFYQDNCKDDSSVVVVNKRRNENETAYQSHKRIVNSFIKQRLYELIKIHTTNIGLVQKVEMLYRELIAAEFILLTFGITVELLGRLENTYLQIPFALMQVAMDCFSGQRVMDASLTFENAVYACKWENFDVANMKTVLLMLSMSQKTLKLSAGGVTMLSFTSLAGVIRIIYSGYTALRQLY

>CmedOR8

WVPWFTVYIHSVAAAYITIIYSLIMDGLFFVLVTNICINFSILSNDILKLKENNFRNINDCIRTHQYLIKLSEELNDIFEAPNFFNVLFGALQICALGFCITAGDWSLVPAYLLFLSTVIVKLWTTSYFGEKLVEKSTEVNEAILNVDWYEADLKIQKTI

LLIIARSQQPQRLTAYMFSTVCISSFSKIMSNSWSYFSILRSAYQKPEG

>CmedOR7

VYVYIQFHVLLHNYYLLELVILSFGVIFDGLDVGVAYLPVRDERRIAVQRTLNKRMERIVTWHNSVFKSIAKISKIQGAPLVYQVMFSSAAVCLMMYQIADKLDNGVVDILFIMLFSAATIQLWVPCHLGTMLRNKAFEVADACWHCGWHETLLGRLLKTDIMIVMVRAQQPLSIKFTGLPNLSLETFSSKMSSAYSLFNMLRQYN

>CmedOR5

RFLVECHWWFIVANMVLVDGLASTSLVYVGYKFRLVCIHFKRLRERTLANVKVKPERECMEEFEKDFVAGIRLHEEALWCARNVQSTMGKTYGVQIIESTTLLVICLIKLVTFERNMTFLVANGFYIACLLTLNGAYMMAAGDVTYEASLLPTSIFHSGWELVRTRRQFYALAVVAIMNSQKPVYMTAFGVITLSHRNFISVMRSSYSFFAVMY

>CmedOR2

MDFFEIEDKENAEKEDKEYKFKPFHLTFKWIASFLMLGLLYPNPRTDKTRFMLIMALLFVTLPVIVVINIDIFVCWLKRDMFNIIRHSTIIGPVMGAFFKMFVLFHKRVQAKLLIDEMTEDYESYNSLPPTYQEMAVRTIRTCKIYTLWWGLLITTTILM

FPVLALGSTLYSHLFESIPRRYMLHDVNMPFMPTEARFESPYYESIFACMCVCAVISVLNYTSYDGLFCLITNHACLKMSMYCLRLEDAFKQDDPDVMWSELVTVIREQMKTFRFSALIQNTFNTWLGTILISTMIEIGSLLFHISAGYGFDVRYAVFSITSVVHIFLPCLYAANLSAMSTDTATLVYCSGWERACPPRIRRLLPFVVARAQSPIEINAFYMFRYDMMLFVNIMRTSYSMFTLLNTS

>CmedOR1

MTSEGRPRRYFALHYSLLRFLGLGWWHHPDEGDTRNFPGWYLYYSIITQLVWVVGFVGLETIDPFIGEKDIDRFMFSLSFVITHDLTLIKLCIFYFRNDQIQDIVRTLEIELYDYYQNDKKNQATVRITKILTSSFLFFGWITIGNTNVYGTIQDLRWKAEVAGLNDTSLKPPRTLPQPIWIPWKYQSDRAYISTFVLETVGLLWTGHIVMTIDTFIGSVILHMSSQFAILREALVTAYDRTISKLHDARQDIEEPIETSDGTTYDNEDGVHNAMEEIVFARYSAKEIDLALEETLKNCFRQHQVLIRCVEKFAATYSYGFMTQLLSSMAAICVVMVQVSQDASSFKSIRLVTSLAFFMAMIIQLAIQCFTANELTLQAGRVADAVMQCKWERMSPRLRRQLVLVTVRAQRPLRLSAAGFANMNNDCFLAIMKAAYSYYAVLSQKQNI

>CmedOR23

MWFHLLRNAKKSKESTLDSEPIKNYIHFLEIPLKIVGCWDWYKNPTKDREIIINNLYLGAVLFSIINVPITLFVHVYIEWVDIMTSLDILADCLPFAVS

>CmedOR6

MEWKNWLEAYPEEYQKPLIETLDLLRKGNIRLLGPNVPFVKKYWHFFYMIPLVTVHYASMITHIVLTEKFDHFQRADLPMFLCGSACIIKTIIIYTKQEEIREFIIHLGSSWRTDDLNDAQLKLKKDAMRHLSYAVIAFCRLGIIFSVQFIMWPLCDTVIRRLLLNQDIELQLPYSCVYPFEIVDWPVYLAIYALQVFCTLYSTSYIYIGT

>CmedOR4

YKDAVRNIVDGYLACDARNTQGSRFSQNQLKTLRAVKKRALIFWFVIIGNGVIYITKPILTPGRHLMEDCFIIFGLEPTFESPNYEIAFLLTCCGVFTTCYLPANITAFLIVVIGYTEATMLALCEELLHLWDDAHEAYNNHKQLSITSRDHYAGNEYNSRTIFVNKYVKQRLDEIAKIHMTNINLIHQIEVVFRGAIALEFVLLIHGLIAELLGG

>CmedOR3

MDSRLFKAIKAFLMKENFDFTRPDMDLYIFHPQLRLFIAPMGIFFNNTNSLLRFVWPFLSVSLSITAIVLEMIFVYHGLMVKDYAFATECFCYFIMLGIIPLVYGCIIFNRSSVLELLEDMNKDFKLICKLDARYRDHFMKGQLLIWQLCFIWIWFTFVI

VVMYCIMTMGPLLYLSLFATQDEHKVRPLMFPMWLPKDDPYRTPNYEIFLILQVNFCIMYIQTFAVYVYI

>CpunOR1

MRNSGTTNVLHDYSTLADKMPKKAVTIEKLDDANAREPMDLRYMKMVRNLQHLIGSWPHAAFGQAAQPLPLRSTGVLALEWSAVLLGGLVYIRTHFSKVTFFEMGHCYLTVFMNVVGVQRVLIPWVHRKTYPEACKLFVCEMHLMHHRHKTPYSEEVYQRIYRLCTIFVKLLTAEMVFGIFLFNLAPMYYNYRTGMFREDKPEGKLFEHSINYSLPFNYHTKLSGYLIVALLNLFLTYDCGLCFCGYDLLLSVIVFHIWGHLKILDNNLRTFPTPVQMREQTGEQGDELSYTEEENKRVGVMLKDIINHHRMIMGFMTTTSAAFGPMLCLYYTFHQVCGCLLLLECSRLDSAALGRYAVVTVTIFHLLIQISVIVELLGSQSETLKDAAYSLPWEYMDTSNRKIVLFLLYNVQTPITLKPMGMVSVGVKTMATILKTSISYFMLIRNHF

>CpunOR2

MMTKVKALGLVSDLMPNIKLMQAAGHFLFNYHSDNSGMAMLLRKIYASVHAFLIVIHYLCMAVNMAQYSEEVNELTANTITVLFFAHSVIKLLFFALNSKSFYRTLAVWNQSNSHPLFTESDARYHQLSLTKMRRLLYFICGVTVLAVVCWVTITFFGESVRMIANKETNETLTEPAPRLPLKAWYPFDAMGGTMYVVAFVFQVYFLFFSMAIANLMDVMFCSWLIFACEQLQHLKAIMKPLMELSASLDTYRPNTAELFRASSTEKSEKVPDPVDMDIRGIYSTQQDFGMTLRGAGGRLQNFGGNPTNNPNGLTQKQEMLARSAIKYWVERHKHVVRLVASIGDTYGTALLFHMLVSTITLTLLAYQATKINGINVYAFSTIGYLSYTLGQVFHFCIFGNRLIEESSSVMEAAYSCQWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>CpunOR3

MRSIFVRVKDYGTVTEEFLTKIHLDHFRHCGENYDKICRRVNQFSYYVTLLMVVIAALGLNFFNIVPIYNNFRNRNDEDAVTQYSIYLSLPGVNQDMIYTFSTIYNYYISVMCAVLVCGIDLLMFVMAFHVVGHIMTLRDDINNLPKPKGKKDPVHMKNNYQTNLHVDIYDNEENAKIREELLKCIDHHATIVSFAGALSDLFGPILAISYVNHLVCGALMLLVCTTGDRNSVVRCIPVTIVVFSQLAQISVIFEIMGSESAKLMDAVYSVQWECMSANNRKLVHMFLTKVQTPIRVTALGMVDVGVEAMVAILKTTFSYYTLLQSLGE

>CpunOR4

MFTIMEASPKRKENPLLQKHIRILRGILMTIRAWPADTYEEKILRKICSVAIVLIITLNVTSELYYIVENFNNLGFFDLGDLCMTECLAIQTLIRAVFASLKRYETVTTEFITKFHLDHFKRCGVHYEKICRKVNYIAHYITLVMVANMTIGVNFFNVVPFYNNLKNGMFNNNKPSDYKPQYSIYMGIPGLKQNEYFLISTVHNYFSSYFCSVLICAIDLLMFLMAFHLIGHIAALKHDLHNLPKPGGKFVMNLVQRKSNYQANSSNGVYNRKESDLIRKQLIKCIDHHNTIVSFAGCVSELFGPVLAFSYLNHLVCGALMLLECTMGDSDTVMRCLPITIITFSQLAQISVTFEIVGSESEKLIDAVYNTPWECMNTSNRRLVSMFLAKVQTPIRVTALGMVDVGVEAMAAILKTTF

>CpunOR5

MQKGQPLLLTHIRILRLSLMTCGAWPNEVLEGSSRRRFSLAFIIIIISCINTCGELNYLIKNYNILPFFDLGDLYMTFFLTILTLIRAIIPTVKSYGDVVCTFFMEFHLEHYKQKGEYYEEICNKINKFSHYFTLLTVANMTLGPIFFNLAPLYNNYRHGAFTNNREENYTLQFSVYFLYPWYDQEDHFITTSLINLYLSYFCALLVCCLDLLMSLMAFQIIGHIKTLIYDLRHVPRPKRHISMDISFRETNTKANIYADIYDEQENIVIRAKIIDFVNHHRQIVNFAGSMSELFGPMLAFTYLYQLISCALLLLECSQGEPAALARYGPLTVIIFYQLAQISFTFEFIGSESDKLKDETYDIPWECMSVKNQRLVWMLLNRIQIPIRVTALGMVEVGVQTMVAILKTTFSYFALLKSINE

>CpunOR6

KPDPMSLPYMRYTRLMLQSVGAWPGDAVAGRALRPRLYAYYLMLETAVLIAGELLFILNQFHVLSFFVLGDVYIALSLSFLVMFRAVLSCFKRYGTIFRKFITEFHLMHFKHKSEYSNQMYEKVNKISHYFTLFVIGLSVSGVVSFNVTPLYHNYRLGVF

RDEPPENVSAEFSVHYLFPGFRQEDFYLPSTLANVFISYVCAFIICTMDLFLCLMIFQIIGHIKTLIHTLRNFPAPKKMKELQGFRQGNKAPIEVEIVKQFDDQENEVIKKIIIECVEHHLFIVSFTDDISNFFGPMLAFNYLYHMFSFSLLLVECMQGQDALMRYGPLTMMTLAQLTQLSVTFEIVGSESEKLKDEVYYIPWESMNKSNQKSVGIFLKRVQTPIRVTAMGMTAVGVQTMGGILKTTFSYCAFLRSLNP

>CpunOR8

MGTSKFMSLLNDGSDLEGVTRAQDMQYMRLLRTSMRHIGAWPAGRMREPVSRLYQGQRYFLYALEFVALILEFGYLKNNIGKISFMKIGHSYITFMLTIVAISRTSLVFTNIFNDLFCDFVNEINLFNYKHKSEYAMQTHKLVHKISHFFTLYLYSAMIIGIGLFNMTPLYTNYVSGAFNNDGSRNISFEHSTYYALPFDYTTEYKGYIVVFLVNWYMCYFVSSNVCTIDLLMSLTVFHVWGHLRILIHNIHNFDASRDDATGNNEACDEMNKKALLQLKSIIMHHHLIIEYISRMSTTFGPVLFIYYGFYQAGGCLLLLECSVMTTDALLRYFPMTLIMFQQVIQLSIIFELLGSMTDKLVDAAYCLPWEQMSTSNQRVVYILLRQTQLPLNLRALDMVDVGVQTMTSILKTSFSYFVMLRTVTKEE

>CpunOR9

MKIIKNAQLVNNKRENIDITPPRDQLMYKILANVLELYGLASMKLWNIPPYHVYLNKFYAINSLLIYTSPLCILSQLLYLYVHFNDMSFYTLGVMFSVLPIGITVLIKIASTRTNAYKKIMVNFMNKIHVHNQHLEEPDNEFIKSVVKQTENFTHLATYFLAFCLLTDWTAWTAIPVIDYLKNKELIERKEKKLETCLYLYTPFDYSYDVGNWLIVHTFGSYLNFGGITIIIIFDTLCFIFVFNLVSHMKILQHKMERICKIDEMTNEDMRKKLIEIIEYHAQIINYFDDIQAAFGLNITAVYAQNLFVDSLLLYQIMVGVNGEKTHVIIFGLMFVAYMGGLTFMSFVLEEIRRQSETFSDLIYSLQWEDMSKSNQTTVIMILAKMQPPLTFTGAGGLQTGVRPLVSIIKSTFSYYVMLNNRTATR

>CpunOR10

MEPTQSQVFDLNIFLWKIFGMWHHETSTIYYKYYCVTFQMLYSVTYTFLFTLSLMFTPNDLELIISQCMFYFTQLAGVTKIAMIILRKKYIFEAFHILDCIEFQGDDVETRKIVNENKIFYKKYWKACFVCYNSGGFFILCLPLINYVVRRTELDLPLCQYYFLSDHTREKYHSGLFFYQFTGLVVIILSNISTDTFIIGLLMMAITQFRVLNWKLTNLNFSSLDEELVTMVDKEVLFVEKLKKCLVHYDLLLKYCNIIQDVTSYSIFAQFGTAAVTLCVSMCTFLRPMTNNDFMTSVTYMTSMAIEVFLPAYYGAELTHESEKIVMAAYSSDWIPRWKSFKRSLLLVMERAKRPVVITGLKMFTLSLETFAAIIKMAYSIFTLLKNAQNQNEN

>CpunOR11

MDLFEHVKNTFSNVKTRLKHNTYADLLWLVNIVPSFAGFSILGDTLWAPFWIAHLSLLMYIYGVGCAVYQIRDAQNTGDFIKSFVNVSLFVLIANNSYWFMMKRPLLKSTLADISKSDEMATVNVIFREKHERYLMRIKCILLIFYGFNVGNAAFVYLPHRVDVLNDYAMTPCYGMEPLSSSPNKEICMTLLCLQELSIMTVVLNYQALLLLLIAHTALLYHLLSDEIMTLNNFNKDELYNNPAAKEFLPVIIHRHSIILSVIFKLKALYSVPIGVNFGSNAVCISLFFYLPLQQWLQFMPILVYCFLVFFLYCFLCQRLSNAAEVFEMAVYACGWENFDINERKAVYVMLRQAQKPVELLAADIIPVNISTFATTLQAMFKFVTVVKF

>CpunOR12

MDKFLQSVEDPKRPFLGPNYWFLKKIGFIVPDNKLGKYIDIFIHEIAAFFVFTQYVELYIIRSDLSLVVTNLQISMLSVVCVVKANTYIWWQKRWRELFDYITAADGIERNSNDPSRLRIVDRYTKYCRIFTFNYWMLLFITFWTTSLTPLMRYVSSESYREELRNGTEVFPHIFSSWVPFDKYKSPGCWITVVWHLALCAYGALTMSAYDTSITVVMVFFGGKLDLLRERCRQMLGTHGVPVTVHEAASNIRELHHIHVDLMKYSRLFDSMLSPVMFVYIVLCSMMLCATAYQLTSDTNAAQKVLLGEYLVFGITQLFIFCWHSNDVFLKYQNAMMGPYESQWYDATPAQRK

>CpunOR13

MLALLDRLEDPKRPLLGPNVKALKFWGLLLPKNLALKYFYLLMHVLVTIFTATEYVDVWFVKNDLNLLLNNLKITMLATMSVIKVTTFLTWQKHWQGIIDYVTRADLAQRVTTDETKNDLLAKYTSYCRKITYSYWSLMYTTVVIVMFQPVFKYFLSSSYRENVKMGTESYLQVVSSWLPFNKNTIPGHLAASAIQSYAAIYGGGWITSFDSNAMVIMVFFRTELELLKIDCANIFGSNDAQVSDGVAFKRLVECYKRHVELVKYSKLFDSCLSPIMLLYMFVCSVMLCVTAYQITSETSAMQRFLTTEYLVFGVAQLFIYCWHSNDVLYASLQLSQGPYESTWWMRHVSHRKNLFLLTGQFGKTIVFSAGPFTKLTVATFISILKGAYSYYTLLSKSQIKD

>CpunOR14

MVTLKHFWRKLTHTKALENSSGQLEMAFFETVYRVSYITGFSAADHDIPYMIYSTTVKLLITMLVCAEMWYAFTETSSLDGIAASINTALIQLITMYRYGKMLYHKDVYRKLAMSMESPYFDISTEQRRNLVDYWAKKNDNYLKLLLFLGNCSLAFWFVYPLLDELEYNLFIAIRLPFDHSSPKNYVLAYFFAITTFAYMSHFVMGNDLLMQAHLLHLVCQFTVLSDCFENIVEDCTKEFKDADINSLIRNEVFQRVYKNRLRDMVNQHRSILSHVMELRDALSGPMLGQLAASGILICFLGYQTATTGVGNVTKFLMSLLFLGYNLFEFYIICRWCEEITVQSEKVGEAAYCSNWECGLTVIPGVKSCLLLVIARATKPVVMTAGGMYNLS

LMSYSSLVKASYSALTVLLRTRQD

>CpunOR15

MEFKQIDCFDRNKKFWKFLGLYPDIDIWPYYHYYSIFFIFFVIILYDFLLSINFYFLPRQLDSFIEEMLFYFMELAVTSKVFTFFFQRGKISKALASLESDIFQPTTNEGVEIINKAKKFNVRYWKIVAVVSTTSNFTHVLTPFFVHLFLPVKLELPVCSYSFLSEDTIQRFVYPIFVYQGIGMHFHMWCNVNIDTFFLGVMIFAIAQLDILDIKLRSLTDNIAEDTDVDKNLNLKLNEAINHYSEVVKFCYLIQDIFSVTLFVQFSMASCIICVCLFRFTLPATADYYVFLATYMFIMIIQIMVPCWFGTRIMDKSCLLASAIYSTDWTPRSKRFKSSLRILVERLNHPISIVGGKMFPLSLETFTSIMNSAYSFFTLLRHMQTRDR

>CpunOR16

MWQSARKFGLEHCDLETMLQNVNLLMRTLTLNIDSQNKKPIPWVYYLVTLVLGLCYYYVFLFCMAWVVAWRSRQTGDWLGATIVASLGITSEIGTTKLLYMILYIRQIRELVDLYRECDKLVSPESRFADNLLKTLKVVKKRAIFFWMVLVGNGVAYICRPFLRPGRHLLEDSFTIYGFEPKFESPNYEISNLLLSGGIVFVVYLPSNISAFLIIITGYTEAQMIALSEEMLNLWDEAQRHYQHRAAAFATSSVLIQSREVKWQEYTVKKEIVNEYIRSHLREIIKMHRTNIFIVQKVENVYRNLIAAEFILLTFGITVELLGRLENTYLQIPFALMQVAMDCYCGQKVMDASVVFENAVYACQWENFDVDNMKTVLVMLQMSQKTMRLSAGGVTMLSFTSLASVIRIIYSGYTALRQLY

>CpunOR18

PLKIVACWDWYRRPQTDREIIINNVYLCLVLFVLVNVPTSLYVHLYLDWVDIMTSLHKLADCLPFIVSIVIVIYFSIYRKELYELTDFMMENFKYRSANGLTNMTMLNSYKKAKGFARFYTACTLFSVTMYTLPEIVNWWTDQPLLSHLYMDVTRSPFFE

FTFMRQFLSQAFVGLAMGQFGVFFAANSILLCGQLDLVCCSLRNARYTALLRSGAAHAALARAHADVLLDERHSYIYNVAEMKESAYHYDQKMSRIFTDRRTHFDLYSAEFDAATCAALRECARVCGAANRYRERFERFASPLLALRVVQVTLYLCMLLYAATAKFDMVTVEYLAAVALDTFVYCFYGTQIIIQADRVTTAAYQSAWPAMGATPRRLLLNILLANRRPVAVRAGMFLPMDLHTFVVIIKTSFSYYTLLVNVNEK

>CpunOR19

MDGFEIYHKEFLKPLIVTLKMLNQFNVRFCSSEVPFLTRNWRFFYLVPLWILHIISLMSFIVNLIMEGNDPFEEAYMIPICIISFEHCIKMCILMKKREEIRDVITNIGNIWRSTGLTDDQKKTKEEILKKLYNAGLVFNNIGIAVTIQYLMVPLFETLVRRLILKQEVELMLPLTIIYPFEIKTWPLYLVIYGFQVYSLLCAACVYLGFGWLLVVLTCYLNIQFLLLQEDLIHVKPETSNRLSYLPEEEGEITQYWEPSPFGIDDFVRQHQTVILLTDKLNAAVNKITFTIILFATLNISFFAIAVKASAGAVDMVNNFGAIIVIMMNIFILCYCSQLLSSSSSGIALAAGKNLWYKGDLSYQTKIRFIMMRSQKPCSLTSLDFSPIGLETFNKVLKTTWSYFSLASQMYDERY

>CpunOR20

MVLRFRNLTKCHFSISKLLNLIEDKRYPCLGPHIWMLNLGCLWNSKTNKFKKFTLYFAVCFFISQYVKCVIKHKPSDLKLILRHASFHLGIVKACFFLKNYKKWENLIDYISTIERNQIADGNIDKMEIITEYIKRDRRITYFFWALGFIAILGIFTEPYLLNEKAINGTAGVYVNVIDGYIPYGGEPPGYYISMFIQTVLGFIVSAVVLGWDTLVCAIMICLCGQLRIMRWNCANMIDVNDTEKSRSNIAECHRKHVTLVMYQRLFNSLISPPMFIYLIVVSIYLGISIMEIVKLANDLNTLISSFVYLCASLTQLLLFYWHSNDVDLQSTMVSYGVFESDWVGMDVRCQREVMLLGYTTRTRLVFYAGPFNEMTLATFIGILRLTYSLFTLLSSTSG

>CpunOR21

MTSLAGGSVAPHLRVLRLVGFCRLRAPAGRAAPGLARRLHGLYCWFALAATSFYVLQQGIYAYQERHDMVKLSRVLFVLLCHCTCISKQVVFHAHAPQIDALIRSLDQPLFNQGGAAREALLRRAAARAARVLRAYYGCGIATCVLWTAFPVIYRLQGHYVEMPFWTFIDYRKAFMFVVVVSHSFYATNLVAVGNTTMDAFIATVLYQCQTQLRILRLNFESLPERARIASKELSKGDYEATLNKLLLECILHFQKIADTMELLQRVFGLAVLVQFTVGGWILCMAAYKIVSVDILSFEFASTTLFIVCILTELFLYCYYGNEVTVESDRVVESIYSMEWLHAPLRFKKSLVLMMERAKRPLRPAAGRVIPLSLDTFVTILKSSYSFYAVLRQTK

>CpunOR23

MVDLPVDQSLKKIKFLYRLSGMNIEDRDKNTTEKAVYMFNFLWILTDIILATEWGIVGFVKGLDFIEITHVLPCLNMGMVAEMKTIFLVVYEDKLKQLLRDLRDLERIRLPNNPYAKKIADTDAKFLHKLMKVIWTVNICMLVLFNSGPLVLIAVKYYLT

GKLELLLPFLDVYPFDSYDLKYWPWAYLHEVWTACIVLSEIFAVDFLFYVCCTHIGIQFKVLKMELEHLITGKGLLADHDDQLKEKLADIVKWHQQIISCAEMLEVIYSKSTLFNYISSSLIICLTGFNSMVIDDMAIVISFFMLAVVEVLQIFFLCFFGGKLIDSSTDVSSGAYNSKWYLTDIPTRKTILLIQTRAQNPCKLTAAGFADVHLRAFMKILSTSWSYFALLQTMYGSSKVSH

>CpunOR24

MSAESRPRRYFALHYKLLRFLGLGWFHHPDEGDTRNFPGWYLYYSIITQLVWVVGFVGLETIDPFIGEKDLDRFMFSLSFVITHDLTLIKLCIFYFRNDQIQDIVHTLEIKLYDFYQNNRKNRATVRITKIMTSSFLFFGWITIGNTNVYGTIQDLRWKAEIAELNDTALKPPRTLPQPIWIPWKYQTDKAYISTFVLETIGLLWTGHIVMTIDTFIGSVILHMSSQFVILREALITAYDRTISKLYNSSQDNIQEGIVPTDDSTTYDDSTQNAIEAVVITRYSAKEIELALEETLRNCFVQHQVLIRCVEKFAGTYSYGFMTQLLSSMAAICVVMVQVSQDASSFKSIRLVTSLAFFMAMIIQLAIQCFTGNELTLQASRVADAVMMSKWERMPPRLRRQLALTMVRAQRPLRLSAAGFAYMNNDCFLAIMKAAYSYYAVLSQKQKQNI

>CpunOR25

MSDHTEKPNGISSCNLNQNLDNVEAKEGMQKEILFDQSLQKIKFAFRLTGLNIQNEKRSMKQNCVYLFNFLWLNTDIIGALFWVIDGMLSGKNFTELTYVAPCLTLSILGDVKAIYLVLNESKVHTLIANLRKLEQKANQFENFEQDKLIEPDIRLFNVVIKVLNVLNCLMIVVFDLSPLIIIAVKYFTTGELELMLPFLDVYPFDSFDLRYWPFAYIHQIWSECIVLLDICATDYLFFTCCTHIRIQFRLLQHQYQEIIEPVNLSAVGTIDRSRIKTKFKDLAVWHQEIINSASMLEGVYAKSTLFNFMTSSLVICLTGFNVTTIDDKAFVITFIIFLFMSMLQIFFLCYFGDILMSSSMEVTNAVYNSRWYLSDVGMGRNVLLVQTRAQKPCKVTAAEFADVNLRAFMRILSTAWSYFALLQTVYSSRSK

>CpunOR26

MSKAGVSVRPHLRVLRRLGFCGLLPAQPGAPGRGPLARRLHKIYCWFTLCGTTLYVIQHLICIYQERHNAARVVRVLYPMFSFCTCVSKQVSFRMGQPRVDDLIIGLNDELFNQEGERYAQLLKQTAQRSFYLMRLFYSCGVSTVSLWTLFPVVQYFQGKEVELPFWTPLDIEKPSMFAIVVAHSSYMVLLLSMGNTTSDVFIGAMLYQCSTQLRILRASFETLPERAKKLSEELNENYDMILHELLVKCILHFQKIADMAEVILQVYGWAVLVLFGVGGWMMCTAAYTFITVDILSMEFASAVFFIICILIELYIYCYLGNEVTLESDLVVESIYSMHWLGTSHRFQKALVLVMERAKRPLRPTAVGLIPLSLDTYVRILKSSYSILSVLRQTNK

>CpunOR27

MSELTLAEAKQEIAESLTLNTFCMNRIGLSFEEPKNTTAYLLQKCMFVLSVMGICYHVFSEIVYIGLTLSNSPRVEDVVPLFHTFGYGALSIAKVFVLWYKKDVFKQLIYELAGIWPMPPMAEEDTMIKNDSLAALRMAHRWYFAVNVLGVWFYNVTPII

VYFYRVYQGQDVTVGFVWVSWYPFDKHKPIAHVFVYIFEIFAGQTCVWIMVGTDLLFSGMASHIGLLLKLLQRRLETLASAEQTEEQDYREILSNIKLHQRLIRYCNDLEVAYSLSNLVNIVLSSVNICCVVFVIVLLEPFLAISNKLFLGSALIQIGMLCWYADQILHANADVAAAAYNSSWYRTSARCRRALLFLIQRAQKPIAFTAMGFTDISLVTYSAILTRSYSYFALLYTMYNDK>CpunOR28

MTIPGKKQWEFTSFPETFLITSFSMSIGMIYPNPATDKWRLLAIPFALLSVSPVSVFISIEMLKLWNNGEILELMRHTAMFLPFFAGFMKMCLMYYRRVEAKKIIDIINHDYAYYNNLPDDYKAMVAASIKSSHIYINIWAACVMVIFAVFVGTASLLNIVSHLFMQEPKRYMIYDINMPGRDPEERFNSPYFEIMYFYTIYVALMYVLSFTGYDGLMIASVNHACLRQNIFTRQVQEAMGMRGERLRRKMADAVKDQVEALRLIDYVQTTFNIYLGYMYVIVLVEMVICIYLTNEVKLYCLIEFIIQNLVSAFVTITRLVELIYV

>CpunOR29

MRQRKGATYHKASPTYNLRKQITQTINNTGITFEDDRIKWHWIASVSVICFVIADVAMIIALFSVDDEERFFECFSVLCFCFVGFLKFLSLNCNHKQWSSILSNITALEKEQISYEPASVEYESDDENETFNFPQYINSYTAQFQAVSTFLFRMYITTLIIFAVSPFVEYAFLRILGEHVEWLRILPGWEPFANKSFVGHVINIIIEIIGSCYCVILHVAFDLTSIGVMIFICGQFSLLRVYSENIGGKGRHWQLSKRRDERAHQRIIRCHKIHGLLMNTSNELSKLLTNVLGVYIFLATLTLCSVAVQLNSELSSMQLVSLVQYTCATLTQLYLYCRYGDNVLHESSIGMGQGPFGAAHWCLSPRTRRELALLGAGMMLPRYIRAGPFTRLDLPSLINVVRTAYSYYAVIRQ

>CpunOR30

MFSNFNECLVSPVVVSRYYIKTKMVESRAFTIEDYDGTYTLIKRALFPIGLRLMRKDSRLAKICWDTLYWICFASLVMTTGLDFLLLREVLLRERNLQGAMDIFRMMPCVGYMVQGMLKTYKIVVQRSTFENLVDELRSMWPQGELPEDENDVMTKSLKEIHIFVKAFYYSNYILVISITFPAYIDVGKRIFGKETPRVLPYTNWFPFDPIRPVWYEVTLIWQVYETMVTVWTVLAGDLLFCVLLNHVTTQFDLLCVRIQRLFYVPIDKQLIAAYPLGEVSNKKSKDDKNKYASFNSVELNIKHRKDLADIIKRHNTLIRLAKDIEDLFGFAMLFNFFYSSIIICFCGFCSVLVEKWNEFMYKSFLITAFIQTWLLCWYGQKLFESSQRVADALYNSGWYTASQEIKKYILFMIQRSQKSVNVTTYGFSVICLITYTAIIKTSWSYFTLLQNFYKTSG

>CpunOR31

MNLLLQNSFWSLRLTLSVLYWTGFYIPKGNAANKSSYILPFFSFMFMDGTYVIAQFGDLCQVWGDVALMTGTSFLLFTNMSLGLKMFNLVWRKVEIGAMVAEADEELTAEDTSGGKEIIMRWNRESNVLYYCYCFLSFVTVAGWATSAEKGQLPMRAWYPYDTSKSPAYELTYIHQAVAVSLGATVNVSLDYLVTSLMAQCSCRLRLLALRLRTLGEDFVVNDQMLFSAYHAQVLTERLHRCIQRHQSALETAARLQKAYSATILVQVTVSMVIICVTAYQLAFETQDLVRFVSMLAYFLCMTLQLFLYCYQGNQLSEESIQVAEAAYEMPWYSCTSSFRRDLLMLMTRSRRVSRITAAGFTTLSLSAFMAIIKASYTFFTVLRSVDS

>CpunOR32

MKFSIENYTHTVGNKNEMNGIMRIVLVLQRFFGQHILNPDWTWKRFCLYQLATFALFSYVLAGTFAILQETDDIKMIAEATYTVVVTGVSFVKYCIITSKRFVFRRLYVELKSSLYDIVRDDSEEKMKKVFDDGKKSVYYIFVFTLCPIIMYIARVLWYN

LHGQKVTLSLTTSILMPMETPYYQLGLILHSIYFIEVSFIVIQVDMWLVLFVFFFCVTSDITLKILTVEKRKQGEDRIEYAVRLNDSLKRFYRLHVKQVNFLSMLNGTFKWITLVTQVNICICICIVLLLVRKGAESAFALNILPSIAELIGFSWLGEQIKTKTNNWKMALLDFDWINLQQKDKKNYYILMCYMNQEFGLQSAIGGDLVLITVSKVLKFSYQVYTVLQSM

>CpunOR33

QVFHRVLSFAGVAIYAKHNWDSKIWFAFQIFNFLIGLFCFIFTTGFVVTNYSDLLIFIEAACIWTTGVIMTISLGVCLVFRNKFRVFLTEMAFKDEMLEMPLIKYAFKFGEGKKLMELKNMVMESQEKLLKYTRVLLKSYVISVWLVATLYLCSPIYEMFAKGDPTLRLLAFDMWFPWSLEKLGVYIASFIFHAYAGYLCCIAYPGLQLTIILLIGQIIRQLRIVTFIMRNLNELVVEIIKDRESKWQICCTAVLAQCVDHYIKLKRFSNRLNVICQPFYLTLILVAIMLVCMCSVKIAISNKLSPDTIKYYVHEFCFIMVVLMFCLLGQQVDIECELLELAVTENWYIFDKEHKMNVRIFKMALSQRMPIFIFGSIKLSLPTFTWFIKTGMSFFTLVMSVLEE

>CpunOR34

WPQGTVSEEETTVLTESLKETKTFVKVLFYSNYILVLSIAVPPYVDVVKRFFWKDTPKILPFTNYLPYDPSPPVLFELTLTLQIWETIITVWCVLLGDLLFCVLLSHVTTQFELLCIRIQRLFRVSIDDQLIATYPLAENNQETSAANNDEYTSFERKMMYQREVAEIVTRHTALIRLAGDIEQMFSFAMLFNFFYNSIIICFCGFCCVLIEKWNVFMYKTFLITAFIQTWLLCWYGQKLFESSQKVADALYNSGWYAAPKEVKKSVLIMIQRSQKSVNVTTYGFSIICLINYTTIIKTAWSYFTL

>CpunOR35

MKTLMENMKRKLAVLKPILPYGVIEPWDDLNPRLYHAVHIYWLRFYGMWYNNFSPCSITFWLHIVYTLIVLWLVCFLPGIGEVVYLLKRRENIGDVAEGLYLFLSEMYTYFKVAVFWLNKDKVINLLRYLSCKEFKPVEAEHKEIIRKSIKAARFVMTYYSTMCVGAVSVGIIMPLTENFEILPTNVEYPFFDVYKSPAYQTLYIHHIYYKPATCIIDGVMDTILAAFVASAIGQIEILAFNLRHFDMVAERRRKRAIVENKPSGEYTQEWHMRAVLKECIVHHNSIIKYVSMIESAFSLASALQFMLSVMVLCLVGIQFLSIENPSSHPMQIMWMAIYLTCMLIEVFILCWFGDELIWKSMALRQAAFDGPWLGTNQKTMIFIVIFLERCKRPLRVTAGKIFTLSLDTYTILINWAYKAFAVVSNMKKK

>HassOR3

MGLRQFLFENEAVEGINSASDYLHIKVLRFMLVIVNSWPRKEIGEPESPKFSEFVKYLYLVVTFLLSAGFILYVVKHNSELTFLETGHMYIVLLMSFIDVSRVATLTMSTTYREVARDFLTKIHLFYYKDRSKQAMETHRAVHKIAHLFTLWLVCQMLSGLSLFNLIPMYSNYATGRFSGEVSKNSTFEHSMYYPYPFDTSTDIRGYSIACILHWIISYLCSTWFCMFDLFLSLMVFHLWGHFKILNYTLNDFPRPSSKVEAAKYSEEELVDVAARLKDCIVYHREIILFTDRISNVFGPMLFLYYMFHQASGCLLLLECSQMTAQALIRYVPLTVILTQQLIQLSVIFELVGSESDKLKHAVYGVPWECMDVKNRRSVAIFLANTQEPVHVKAMGVAKVGVTSMAAILKTSLSYFMFLRSM

>HassOR2

MYAGNAVTGITGPMDYKYMKVLRFVLRIISGWPGKALGEKTLRIEGMGHAYYNTILSLVYLALGIAYLKKNFHRFDFLELGQLYIVLLMNMLSTSRAFTLCLSQKYRQVAKIFIKKIHLFYFKEKSDFAMKIHITVHKISFISAVYLSVLLFIAACMFNLIPMYNNYSAGRFASFDNLENTTYEQAISCLYPWNFETNFNGYLAATLSGWYGTILCGSSVSMFDLFLCLMIFNLWGHFKILIYNLEHFPRPASEVVDAEGEERSGRIVGSEMYSQSELEEVAVLLRDCIQYHMLIVDFTNNMSDAFGMALFIYYSFHQITGCLLLLECSQMTAAALTRYLPLTIIMFGELVLLSIIFETIGTMSEKLKDAVYKVPWEYMDTKNRRTVLIFLIKVQEPIHVKAGGLVDVGVTTMASILKTSFSYFAFLRTF

>HassOR1

MKILSDGSDLEGVEKVEDIFYIRIARKSMWILDSWPRTPNESVIYRYFVLALNITTLVGGAVYLRNNTGVLSSFELGHTYITVFMNCITCSRCLMILSRKYNEVMFSFVQKIHLFHHRHKSEYAYKTHIFIHKISHFYTVYLLGLALNGLLLFNMIPFYNCYSRGMFRDVIPANATYDHSVFYSVPFDYTTKFKGYIAMTSFNCFISYTCTSYFCVVDLTISLVIFHLWGHMRLLTYHLANFKKPASVLESNENTHAIKDHSYTEEELKEVFSKLREYICHHNLILNFSSEMSSAFGPALLAYMVFHQVSGCILLLECSQLDMKTLVRYGPLTVVIFQQLIQISVIFELLGSSNDKLIDAVYLVPWEYMDTKNRKLVYVMLRQSQRSIDLKMMSMLTVGVQTMTAILKTSFSYFVMLKTVAEEE

>HassOR83b

MMTKVKAQGLVSDLMPNIKLMQMAGHFLFNYHSENAGMSNLLRKIYASTHAILIVIHYACMGINMAKYSDEVNELTANTITVLFFAHTIIKLAFFALNSKSFYRTLAVWNQSNSHPLFTESDARYHQIALTKMRRLLYFICGMTVLSVISWVTLTFFGES

VRMVTNKETNETLTEVVPRLPLKAWYPFNAMSGTMYIVAFAFQVYWLLFSMAIANLMDVMFCSWLIFACEQLQHLKAIMKPLMELSASLDTYRPNTAELFRASSTEKSEKIPDTVDMDIRGIYSTQQDFGMTLRGAGGRLQNFGQQNPNPNGLTPKQEMLARSAIKYWVERHKHVVRLVASIGDTYGTALLFHMLVSTITLTLLAYQATKINGINVYAFSTIGYLSYTLGQVFHFCIFGNRLIEESSSVMEAAYSCQWYDGSEEAKTFVQIVCQQCQKAMSISGAKFFTVSLDLFASVLGAVVTYFMVLVQLK

>HassOR20

MDDELEFKPFHETYRLITFSLCIAMIYPNPRTEKWRLISIPILIATVAPVAIMIFLDMYKCWTNGDIVNIIRHSTVVGPFLGGFFKMILMYHKRIQAKQILDEFDRDHYMFNTVAETYKAIARASIRNCQVYSERLWACLVTTCVMTFPVMAIVLNIYNFMFKSEPTKYMIHDLEKPFSKEPEERFESPYFELLFVYMFYAAILYVVNFTGYDGFFGLCVNHACLKMELYCKALEEAMMADREEVYGRVIAVIREQCRMFRYVDLIQDTFNIWLGIIFIATMIQICTCLYHITEGYGFDIRYMIFVYGAVVHIYLPCRYAAKLKAMSMETSNRFYCCGWERVDDERVRKMIVFMIARAQVPNEITAFNMMAFDMELFLSILQTSYSMFTLLRS

>HassOR17

MFLRSECARSVAPHVRVLRRVGFLRGAALSSRGRAERLALRSYHALALAATSLYVLQQAVYAYQERGDMDKLSQVMFLMLCHVTCVVKQIAFHVDADRIDRLIASLDEPLLNQCAGERGALLRGTARGAARLLRTYAGCAVATCVLWIVFPVIDRIQGISFEFPFWTGFSYDHNAVFTFVLLQSFYCTNLVAIGNTSMDAFMATILDQCKTQLRILRINFESLPERARALHVESGENYDTILDKLFVDCLVHYNKITEMCTELHDVFAVPLLVQFGVGGWILCMAAYKIVSLDVLSIEFASITLFITCILIELFIFCYYGNEVTVESERVSQSLYSMEWRRARLTFRRSLVLVMERAKRPLRPAAGRVIPLSLDTFVKILKSSYSFYAVLRQTK

>HassOR14b

MAGLRDFFFNFEANEAITTPTNYPYLIIIRRSLSVIKCWPKKTTENLEAGAKLKAKVWGMIQNVLHLGFCAFTIFGTATYIAIHKKNMTFFELGHLYITLMISCVVVFRLLTLTFQEEYQVVVNEFLNKIHLFYYKDNSEFSMQTHKQIHRISHLFTLYITGQLFTGLSLFNLTPMYNNYSAGKYSKEGLKNSTFEHSLYYSYPFDVSTDVRGYIFSNILHWFFSYIVSTWFCTLDLFLSVIVFHIWGHFKILLHDIDNFPRPSKMVSFRLENTNVTISNENYSTKELEQLAAKLKQCIDYHREIISFTNKISDVFGPMLFAYYGFHQASGCLLLLECSQMTPEALARYLPLTLTLFQQLIQLSIVFELVGTVSSKLNDAAYGLPWEDMDVKNRRTVAFFLLNVQEPVHVKALGLADVGVTSMTAILKTSMSFFTFLRSM

>HassOR12

MEDEPLLIDKTVKKIQFLFRCTGINIKSGTKTRKDMIKSRTVYIINLLWLNIDLAGAVVWFFTGIANSKSFTELTYVAPCITLSFLGNLKSLFLILREKHVDKLIQVLRDLEVNEKSRPKSEETDAIIKYEHNFVTTVISVLNVLYFVLLVAFALSPVSLVALKYFTTNELELLLPFLIVYPFDPYDIRYRPWVYLRQIWSEVVVTIDICTADYLFYTFCTYIRMQFRLLKHYIERVIPEEDDAGRLANIEQVRAEFVLLIKWHQDLISSANMLETVYTRSTLFNFVSSSVLICLTGFNVMAISDVAFVATFLSFLFMSLLQIFFLCFLGDLLMTSSTEISEAVYNCRWYLADTSLGKDLLLVQTRAQTPCKLTASDFSEVNLKAFMKILSTAWSYFALLQTLYGAPT

>HassOR10

MAVKNTSLFLGRPKKILSAHGVWPHPNNFVILRKLYMLFIMWTQYSFLLFEIIYIADVWGDIDAVSEASYLLFTQASLCYKSTAFMVNKQSLLELLEIMDCEIFEPKSAEHKKILAAQARKIKRLCLFFLTSATTTCTLWAMIPLFDAASKRSFPFRIWMPVTPLKSPDYELGYLYQMVSIYISAFLFISVDSVAVSMIMFGCAQLEIIMDKIQKIKYVFESADSEEGRRKIIKTNNEFLVECIKQHQTVERFIQLCEDTYHANIFFQLTGTVAIICNIGLRISIVEPNSVQFFSMVNYMVTMLSQLFLYCWCGHELTIRSENLREWLYQCPWYEQDTKFKRALFIAMERMKKPIIFKAGHYISLSRPTFVAILRCSYSYFAVLNRVNTE

>HassOR9

MLDQFDRCLKSVNLYLKFLGLHLESKDTNKTFAQRSRSHRLYFAHLFSLNLEVAAQVLWVLEAVITGKSFVEITRLIPCLILCLISNFKTLSLLYYGRHNDEFIVTMRSLLLNQMQVEEKENRFRKELIDKHVLILTSISKKISYVIVLGLLMFALAPAFIIIPHYFKTDEVKLEVPFIGYYPFNEFDLRIYPWVYLHQVGTAIVAIIMVYGPDCFFFTCCTFIHIQFSLLNNDMERIVTEETPRYDKTKFKKLAVRYIELMRCVNLLEKIFSKSILFNALTSSVIICVTGFNVLVVDNIVMMASFTAFLIFGLMQIFLYCYYGDSIMRSSMEVSTSIYNSLWYKIPAADRKGFLIVIIRAQKPCALTANGFFNMNLSAFASILSKSWSYFALLKTMYHPE

>HassOR7

MKIKMSKPLKFDQSIEKLGVLFRFSGMNIKNKIVTPLDTIKYGWLYTLNFLVVFSAIIGSVYYVILGIKQGKNFIEVTSVAPCLTFSILSMIKSLYHLMYEEHIQELIDLLTELEIRENNREKCIEKEEIIANETGFLNKVINVLYVLNCSMIVVFDMTPIVMIAVKYYKTNEFEMLLPYLDVFSFIPYELKYWPFAYIHQIWSECVVLLDMAAADYLFFTCCTYIRVQFKLLQYDFERMIPDRSISKGVFYEENELRNKFTELLKWHQDIIYSSTILEIIYSKSTLFNFLSSSLVICLTGFNVTIVDDIVIIITFLTFLSMALMQVFFLCFFADLMMTASLEITNSVYNCKWYSANIKVGKQILFVQTRAQEPCKLTAAGFADVNLNAFMRVLSSAWSYFALLQTVYGAK

>HassOR6

MSFRKFLFENEAVDGIKGPTDYLYIKILRFTLNVVRSWPRKELGEPESAAFTVFIKYFYLILTIATVVGSILYVVVHVTELTFLEAGLMYLIILISILDAITVMSLTFSAKYRVLAKDFLTKIHLFYYKDRSKHAMEIHKKVHLISHLFSLWALFQMLSG

LSLFNLTPMYSNLAAGKYRRGGLGNRTFEHSLYYLYPFNTSTDVFGYVVACILHWIISYLCSTWFCMFSLFISLMVFNIWGHFKILIITLEEFPRPKSIGNLQTAYKYSQEELVEVAERLKDCINYHREIKNFTDRMSDVFGRMLFVYYLFHQTSGCLLLLECSQMTAQALMRYLPLTIILTQQLIQLSVIFELVGSESEKLKDAVYGVPWEYMDTKNRRMVRFFLMNVQEPIHVKAMGIANVGVTTMAAILKTSMSYFTFLRSM

>HassOR21

YKSSNTTEFLINLNKFGFIFGLPNFWIEELDFSDTFLKIIGRLNKYGNWLVFGLILAEYGAYFTQKNLDERQTSDFILFIISHTIITGFRVRISHQEVQIRNVMYKLGIALKEVYNDSEAEDQMIKRSKFFSYALVLNCIMSVLMYTVAAVMRVIRAGVTFTTIITVYPTVEDRSTLSDVVRAIFYIIWCIYLTRVFAVYTLVICLTIAMSHQFKNITSYFYSLSNIFEDEQMTQTEKEQEYERSFRAGIKIHSETLNCTGDIQRMCRDVFSGQIIFNLTLLIVLMYQMVNSPRNLTNALTLVIAGLTILLSTGFFMWNAGDITVEAQLLPTAMFSSGWENCGRDSSVRVRKLIVIAMMQAQEPVVLTGLGLIALSYQSYVSIVKSSYSVFSVLY

>HassOR33

PMLLPGRHFMDDVVLLYGLEPMFETPNYQISFVLMGSSCVLICYLCANISAFLIIVTGYVQAQMLALSEELTHLWEDAEENYRGTELEDITDDGDHNDKNKDAILNDYVTVHLKDIAKSHAENINLLGQIEGTFRGAIAIEFCLLVIALIAELLGGLQNTYMEVPFALMQVGMDCLIGQRVMDAGAVFEDAVYDCKWERFNKKNMKTAMVLLLNAQRPMTISAGGVTTLSYVSFMTIIKSIYSTYTTLRSTMHEP

>HassOR38

MYTYVKIAVFWMNKDKVISLLEYLYCKEFKPKEPEHRDIITKSIKSARFVMTYYSTMCVGAVSVGIIMPLTENFDILPTNVEYPFFDVYRSPAYEAVYIHHIYYKPATCIIDGVMDTILAAFVTSAIGQIEILAFNLRNFDLVAERQRRRDLAQNKYIEE

YPAQHYVRSVLKECIRHHNCIIRYVSMIESAFSLASALQFMLSVMVLCLIGIQFLSIE

>HassOR40

LEMAMRNLSLTMLSTVCVFKACNLVIWQNSWKELIDYVSELERSQLSKNDAVVNKIISGYVKYARRVTYLYWALVTATVVTVILAPLFIYLSSPNYQESIKNGTAPYPEIMSSWTPFDRSRGLGFCGATLYQMLACFYGGTVVANFDSTAVVIMTFFTGQ

LKVLSVNCERLFGDGNELVDYDEAVKRIKECHLHHYYMVEFSSVLNSLLSPVLFLYVIICSLMLCASAVQLTTEGTGNMQRIWIAEYLMALIAQLFLYCWHSNDVLYMSNKVDDGVYSSA

>HarmOR14

NPTEYPYMILCRHLLTVITCWPKEPKEGLDTRAKLKARIWVTFQKIFHLNGCFITTIGMAMYIALHKNSMSFFELGHLYISLLMTVVIFSRVTTLCWNPEYQAVATDFLTKIHLFYYKDDSDFSMQTHKQVHKISHLFTLLLTGQMVAGMSLFNLTPMHN

NFSTGKYKKGGLKNSTFEHSLYFSYPFNASSDVRGYILSNIFHWIISYLCSTWFCTLDLFLSIVVFHVWGHFKILIHDLNHFPRSLNTISFRLDQSNITLTTEMYSSRELVQVSERLNKCVEYHRRIVSFTDKMSEVFGPMLFVYYGFHQTSGCLLLLECSQMTVEALVRYLPLTIILFQQLIQLSIIFELVGSVSDKLKDAVYGLPWEDMDTKNRKTVAFFLMNVQEPVHVKALGLADVGVTSMTAILKTSMSYFTFLRSK

>HarmOR4

GAHAFILRISSFFGLAPLRFESRSNGFTVSISGAMCVYSYILVTVLVICTIFGLVAEINVGVELSVRMSSRMSQVVSTCDVLVVVATAGAGVYGAPRRMRNMLKFMENIASVDTSIGGQYSLVTERKLCGIILAILIFFSILIADDFTFYALQAKKLDREWDVVTNYLGFYLLWFVVLILELQFAFTALSVRARFSAVNDALALTARQVSIPAEKPKSSSPLNIYAIRVAPVDSQRSANVSLLVDTMTGREHVVIIKRTASGEPRLVVSPCDAVRRLAALHGTLCDVVNSIDDSYGLPLVVILISTLLHLIVTPYFLIMEIIVSTNRIHFLVLQFLWCVTHMLRMIVVVEPGHYTIAEGKRTEGLVCRLMTSAPSTGVLPSRLEIFSRQLMLQSVSYAPMGMCTLHRPLIASVIGAVTTYLVILIQFQRYDN

>HarmOR20

EFKPFHETYRLITFSLCIAMIYPNPRTEKWRLFSIPILIATVAPVAIMIFLDMYKCWKNGDIVNIIRHSTVVGPFLGGFFKMILMYHKRVQAKQILDEFDRDHLMFNTVAETYKDIARASIRNCQIYSERLWACLVTTCVMTFPVMAIVLNIYNFMFKSEPTKYMIHDLEKPFSKEPEERFESPYFELLFVYMFYAAILYVVNFTGYDGFFGLCVNHACLKMELYCKALEEAMMADREEVYGRVIAVIREQCRMFRYVDLIQDTFNIWLGIIFIATMIQICTCLYHITEGYGFDIRYMIFVYGAVVHIYLPCRYAAKLKAMSMETSNRFYCSGWERVDDERVRKMIVFMIARAQVPNEITAFNMMAFDMELFLSILQTSYSMFTLLRS

>HarmOR13

MKILSDGSDLEGVEKVEDIFYINLARKSMWILDSWPRTPNESVTYRYFVLALNVATLVGGAVYLRNNTGVLSSFELGHTYITVFMNCITCSRCIMILSREYNEVMLSFVNKIHLFHHRHKSEYAYKTHIFIHKISHFYTVYLLGLALNGLLLFNMIPFYNCYSRGMFRDVIPANATYDHSVFYSVPFDYTTKFKGYIAMTSFNCFISYTCTSYFCVVDLTVSLVIFHLWGHMRPLTYHLANFKKPASVLESNENTDAIKDHSYTQEELKEVFGKLREYIRHHNLILKFSSEMSNAFGPALLAYMVFHQVSGCILLLECSQLDMKTLVRYGPLTVVILQQLIQISVIFELLGSSNDKLIDAVYLVPWEYMDTKNRKLVFVMLRQSQRSIDLKMMSMLTVGVQTMTAILKTSFSYFVMLKTVAEEE

>HarmOR11

MHLAGNAVTGITGPMDYKYMKVLRFVLRIISGWPGKALGEKTLRIEGMGHAYYNTILSLVYLALGIAYLKKNFHRFDFLELGQLYIVLLMNMLSTSRAFTLCLSQKYREVAKIFIQKIHLFYFKEKSDFAMKIHITVHKISFISAVYLSVLLFIAACMFNLIPMYNNYSAGRFASFDNLENTTYEQAISCLYPWNFETNFNGYLAATLSGWYGTILCGSSVSMFDLFLCLMIFNLWGHFKILIYNLEHFPRPASEVVDAEGEERSGRTVGSEMYSQSELEEVAVLLRDCIQYHMLIYNFTNNMSDAFGMALFIYYSFHQITGCLLLLECSQMTAAALTRYLPLTIIMFGELVLLSIIFETIGTMSEKLKDAVYKVPWEYMDTKNRRTVLIFLIKVQEPIHVKAGGLVDVGVTTMASILKTSFSYFAFLRTF

>HarmOR18

MEMKVDVLPEKKYKGFNETFKLCAFSLAFAFLYPNRTTALRRCITITLIVTFCGGQLFWFITYTFKCLYTLDIYNFARNMTLAVVLVLFFIKTYYVIYATSKFAPLLDKISDDLLEANNLEEEFQVLYDDHIKIAKVGEISWLLIPTIMSALFPIYAGALMTIESIQTDDYERRMVHDMELLFVEDIRSETPFFQCMFAYNCVQCVVLVPNYCGFDGSFCIATTHLRLKLKLMTLKVNKAFKYSKSRQELRMRLYDSIKDHQDALDFYVQLQNVYGPWLFAVFLLTSFMISFNLYQIYLLQRIDPKYTSFGVVGVLHIYLPCRYASDLTRVSEEIPDDLYLAQWEAWADPSITKLLMFMITRAQQEMIVTGMGLVVFNMEMFKSILQTSYSFFTLITA

>HarmOR17

MFLRSECARSVAPHVRVLRCVGFLRGAALSSRGRAERLALRSYHALALAATSLYVLQQAVYAYQERGDMDKPSQVMFLMLCHVTCVVKQIAFHVDADRIDRLIASLDEPLLNQCAGERGALLRGTARGAARLLRTYAGCAVATCVLWIVFPVINRIQGISFEFPFWTGFSYDHNAVFTLVLLQSFYCTNLVAIGNTSMDAFMATILDQCKTQLRILRINFESLPERARALHVESGENYDTILDKLFVDCLVHYNKITEMCTELHDVFAVPLLVQFGVGGWIPCMAAYKIVSLDVLSIEFASITLFITCILIELFIFCYYGNEVTVESERVSQSLYSMEWRRARLTFRRSLVLVMERAKRPLRPAAGRVIPLSLDTFVKILKSSYSFYAVLRQTK

>HarmOR14a

MGGIRDFIFNLEAKEGITKPTDYPYMILCRHLLTVITCWPKEPKEGLDTRAKLKARIWVTFQKIFHLNGCFITTIGMAMYIALHKNSMSFFELGHLYISLLMTVVIFSRVTTLCWNPEYQAVATDFLTKIHLFYYKDDSDFSMQTHKQVHKISHLFTLLLTGQMVAGMSLFNLTPMHNNFSTGKYKKGGLKNSTFEHSLYFSYPFNASSDVRGYILSNIFHWIISYLCSTWFCTLDLFLSIVVFHVWGHFKILIHDLNHFPRSLNTISFRLDQSNITLTTEMYSSRELVQVSERLNKSVEYHRRIVSFTDKMSEVFGPMLFVYYGFHQTSGCLLLLECSQMTVEALVRYLPLTIILFQQLIQLSIIFELVGSVSDKLKDAVYGLPWEDMDTKNRKTVAFFLMNVQEPVHVKALGLADVGVTSMTAILKTSMSYFTFLRSM

>HarmOR29

MGYQQIDCFDIHLKILRILGVWPHDNPSIYYIYFSRIFVFTFTVLYVVIYTMNFYFLPQQLEVFADELIFYFTNVGALSKALAFIFLRDKVKKMLFMLESEIFQSDDPEEIKLIKEGKEKSNFYWKITAGLSVSANTVNVCLPLLVHIIFSVELEFPVCRYSFIPEKYEAMFAYPAYFYQSIGITTHMLYNVNIDTFLLGVMFLAMTQLDILDRKLRKVTDVCINPDAARGSVDKFIDDQNAVLEIIKCIKHYDAICEYCKLIQDAFSEILFVLFSSGSCKICMCLFRFTMPATTGYFVFLYTYVTVMTLQVMVPCWFGSRLMDKSSQITIAAYDCDWTPRCRRFKSNLRLLVERANRPITIIGGKMFLLSLGTFTAIMNSSYSFFTLMRHMQSR

>HarmOR50

METTTYTRSKTTEFFYKMNFAIYIFGLPNFWIEDLKLSKRFVKIYDKISLFNDLLVYLLLVMEFGAFFTQHNLTDKQKFNLMVFAISHPLLCSFCVMVSKLKKKVRLVMYSQAVALKRDYNDPEVEKQMIARSLTYVLAFMSSCTITMIMFAIEAIWDVI

RHGATFTTLITAYPDVQDRSILADVVRVLAFVTWWIFLTKMVAVYMLVIPLTISLRYQFKNLQSYFLSLAELFERSDLSQKEKEEKYEAGLKLGIKLHSETLSCAEDTQDVCRGVFSGQIIFNILLLIVLMAQMVTSERTFVNMFGTVATSCTVITSTGFFMWNAGDVTVEASYLPTAIYFSGWQHCQRDSSMRVRRLVVTCMSHAQQPVIFKGLGYIELSYQSFITIVKSSYSVFSVLY

>HarmOR27

MLSKIKNIIWCLGRQKIRNGEIDSVVTLLDRLILYNSGLASYTTTYKVHWTAHVLLTCFIIACVLQIIALFMGKDDPDRLFECFSVLSFCAMGMLKLLSLRKNHRKWRKLLTQITILENTQLSNRSISYVEYQSDSEDSDNFSEHISIYTKKFRGTSIVLTRIYSFTAFLFILSPFAERIICEIRGVECVGYPHVFPGWTPLDDFSIFGYLITVLCEVFSAVYCVCVHMAFDLTVIGIMIFVCGQFSLLRDYSSRIGGKGGQCNLSMRRDERARFRIIRCHDINLLLVNSITELDMLLKNIIGVYFFVATLTLCSVAVRLKSEDMGVMQLVSLIQYMCGTLTQLFLFCRYGDAVLHESTMGMGEGPFAAASWCLSPRVRRDLSMLSAGMMSQRHLRAGPFSFIDLPSFIQVVRAAYSYYAVLGKKE

**IRs**

>HvitIR1

ENEDESYRRLCAALSNGGSMIIDLSWTPWELAEELSSQTGLPIVRTLLGSQQLVAAFDGYLESRNATDAALLLESEGDVDRTLFELLGRSNVRIWAHAGLTRDSARALKTMRPEANFYLLLGEASFVMDTYRRAVKEKLVRRDYRWNLILTDYSGDTFDSTQLVLPSMILHVDPAECCKLMGLREECSCPTDLKRKQYIIDALLLYIADTYSKLEPELAIISARIDCDNLQGSELNATRDRLFRQFAEDAEMTNETLFYWDADRSGIFLRSRFILSTYKPDEGLQTVAAWTAGEEFKLLPGVVLEPLKMFFRIGTSPAVPWTLAMLDPETGKPMVNEDNQPMYEGYCIDLIAKLAETMDFDYEVVTPKSGSFGKKLANGSWDGVVGDLMRGETDMAVAALTMTAEREEVIDFVAPYFEQTGILIAIRKPIRKTSLFKFMTVLRTEVWLSIVAALVLTGLMIWLLDKYSPYSARNNPNAYPYPCREFTLKESFWFALTSFTPQGGGEAPKALSGRTLVAAYWLFVVLMLATFTANLAAFLTVERMQTPVSSLEQLARQSRINYTVVESSTIHQYFINMKFAEDTLYRVWKEITLNATSDQAQYRVWDYPIREQYGHILLAINASGPVPDAKTGFEQVNEHTDADFAFIHDSAEIKYEVTRNCNLTEVGEVFAEQPYAIAVQQGSRLQEHLSRALLDLQKERFLEQLASKYWNESARQACPDADESEGITLESLGGVFIATLFGLGLAMITLGWEVFYYKRKEKNKVQTIDEKMERAAFGDTKKKLEKKMSNVHLRKKDRKTAKIGKVVKMDDPAKNNRVTIGNTFKPAVEKLGVSYISVYPKGEYRP

>HvitIR2

MTEVHKSSANDPLIFTPRGTYNGTFTDIRPHREIFARRKDIMGHTLTMANVIQDSNTTQYHLPMEDRLEPEFDSIPKICWMDVKLVFEMLNATPRYIFSHRWGYKQNGQWSGMINDLHTGRADLGTNCLVSDKERLDVVTYTDMVAPFRVRFVFRQPPLSYVSNIYSLPFSTNVWLAIVVCAAVSTVALFLESKWESTLETNPTQMDGSLGDAFLLTMSAVGQQGCVLEPRKFSGRVMVWVFFAALMLLYAAYSANIVVLLQAPSNSIRTLSQLASSKITLAAHSVDYN

>HvitIR3

VMIVIEEYEDLLSPNFDTLESLREARKDGCNVYIILLANGYQTSRLLRFGDRHRILDTRAKYIMLHDFRLFHSDLHYLWKRIINVIFLRYHNKITGILRSKAWFDLSTVPFPNPIKSIFVSRRVDIWKNGRFHYNRNLFADKTSNLNSEVLNIVYLDHMPSVVVTKTNESNKVGGIEIEILNTLAEKMSFKPKLYQPINIDLHKWGQIQANGSFSGLLGEMVNGQADIALGNLQYNPYHLELTDLSIPYTTECFTFLTPEALNDNSWKTLILPFKLYMWVAVLLVLLITGTIFYALARYYMNLQEYKKNHAEHEFIAKKEMEKPDDGS-TRVRSLLVCICLEK

>HvitIR4

MATGIELIISTICNATFCEPIYDNPILDSLISQNTKQYLALSEEFNGKHFKIGTYNNRPLSWTEKDDNGTLIGRGVAFVLVDILQKRFNFTYEVVVPGNNFELGGEQAEDSLIGLVNSSAVDVAAAFLPKIVKYLKLVTFSVDLDEGVWMMMLKRPKESAAGSGLLAPFNNAVWYLILVAVLSYGPCITLLTTLRSKLVPDGEPYISISPSFWFVYGAFIKQGTSLAPDANTTRVLFTTWWIFIILLSAFYTANLTAFLTLSKFTLDIETPQDLYKKNYRWIATEGGAVQFVVNSPNEDLYYLSRMISTGRAEFRSMGSDYDFLPLVQGGAVLVKEQTAIDELMYGDYLQKAREGVAESDRCTYVVAPYSFMTKLRGFAYPKGSKLKKLFDYVLMFVLQAGIIDFLERRDLPSTKICPLDLQSKDRQLRNSDLMMTYMIMVVGLSAAVAIFIGELIIKRYLRVKITKHNKGKRKKAKFSNKPKFYNYDDSRPPPYEAIFGQNSKFKIKDSSKTKIINGREYLVIDAENGDTRLIPVRTPSAFL

>HvitIR5

TWRIRSITAWLLLTGLVIDNAYGGGLASVFTVPKYEKSIDTVQDFVDRRMEWGATFDAWIFSLTLSPDPLLQQVVKQFRLKSAEELVKESRKGTMAFPVEILSSGYTAIPEYITKDVMLDLTLMRENFYYGHCVIMLRKSSPFTEKINDFIGKLHEGGLLLTWETQMSIKYLNNEVQQAVRLSRNKKNVDELKPLGLRHFVGVFIGYAIGVAISIVIFILE

>HvitIR6

VKDGKLMAFIWDSSRLEFEAAQDCELVTAGELFGRSGYGVGLQKGSPWADVVTLAILDFHESGIMESLDNQWILRNNLLNCEENEKTPNTLGLKNMAGVFILVLAGIIGGIVLIVIEVVYKRHQIRK

>HvitIR7

VKIKRSVDPVFYGHPKTREELWNEHFINKSSAFDQNPSLINLLHNITLTYLNDCIPIILYDSQVKSRESYLFQDLLRDFPVSFIHGYIDDNNKLKEPELLVPVKECQHYIIFSTDVKISAKVLGKQSESKVVVVARSSQWAVHEFLASSYSRMFVNLIVIGQSFKDDDDD

>HvitIR25a

IFQTTQNINVLLINEENNALAEKAFEVAKEYVRRNPSLGLAVDPIIVVGNRSDAKTFLENVCRKYNDMISAKKTPHVVLDFTMTGVGSETIKSFTAALALPTISGSFGQAGDLRQWRSLDANQTKFLLQVMPPADVLPEAIRAIVTKQDITNAAIIFDELFVMDHKYKSLLQNIPTRHVITPVKSFNKDEIKTQLRSLRELDIVNFFVVGSLRTIKNVLDAADENQYFGRKTAWFALSLDKGDISCGCKDATIVYMRPTPDAKSRDRLGKIKTTYSMNGEPEITSAFYFDLSLRTFLAVKSLLDSGKWPNDMKYITCDDYDGKNTPNRTLDLKSAFQEVKETPAYAPFYIAEDDPMNGRSYMEFNTDLTAVTVKDGASIGSRSLGSWKAGLSNPLSLTDPDNMSDYSAQLVYRVVTVEQEPFIIRDDEAPKGFKGYCIDLIEEIRQIVKFDYEIVLSPDGNFGTMDENGNWNGIIKELIEKRADIGLTSLSVMAERENVVDFTVPYYDLVGITIMMKLPRTPTSLFKFLTVLENDVWLSILAAYFFTSFLMWVFDKWSPYSYQNNREKYKDDEEKREFTLKECLWFCMTSLTPQGGGEAPKNLSGRLLAATWWLFGFIIIASYTANLAAFLTVSRLDTPIESLDDLSKQYKIQYAPLNGSAAMTYFERMAHIEVRFYEIWKEMSLNDSLSDVERSKLAVWDYPVSDKYSKMWQAMKEAGLPNSIDEALQRVRDSKSSSEGFAWLGDATDVRYHVLTSCDLQMVGDEFSRKPYAIAVQQGSPLKDQFNNAILQLLNKRKLEKLKENWWTNNPKAKKCEKQDDQSDGISIQNIGGVFIVIFMGIGLACITLGVEYWWYKIRKRSTIGDVTQVEPAKAVRNNTDIKGDGFNFRSRNLGLSNLKSKF

>HvitIR8

INRLDYILPIWLFSVGFTYLAERESSSNMYVEPFTAGVWWSCLGILLVLAAAQRITSRKAEEKEGAVLAVVATWLQQDASAVPEGLSGRWTFTTLSIYSMLVHAYYTSAIVSALMSTGRGGPQNLRALADSRYAIASEDHDFIRGSMFDVETKWDDLEYLKRKKMTSKFYLDMRYGVQLVQQGTTAYHAEYHQLYSYLNTLTDDEVCKLQHVDTIPEIVTWITATRRGQWTNILRAAGAWLHETGLAKRLIKRMQDQPPPCRAALLAERVTFWDVVPLLGLTVMAALTSLLLLGVEIAFSRWT

>HvitIR9

SSSLAILENGTGVYGRLARLMRRQRIQRVRSVEVGVRLVLSRRHVAILGGRETLYYDTERFGSHNFHLSEKLYTRYSAIALQIGCPYLATFNDVVMTLFEAGILTKMTTDEYKNLPEQSRRSGPVTESDKENSDITGDSPATSQ

>HvitIR10

QLVRQFRVKSAEELKNSTRVGKMAFSVEKLPSGYFAIGDYITKEAMLDLTLMKEEFYFEQCVVMMRKSSPYTEKISELIGRLHETGLLLAWETQVALKYLNYEVQLEVRLSRSRKDVDKVEPLGLRHVVGVFILYVLGVAFS

>HvitIR11

RGERDSGEWNGALKELVSKKGDVLLGGIFPDFDVHEDFECSSAYLADSYTWVVPRANLTPRWRPLIIIFHEMVWLSVTITFTICAVMWRIIGQLSDDSTYCKSLGHCFMGTWICTLGFCTYSRPSTASLRLFFVFLNLYCIMCITAYQTKLIDVLRNPTFEYQIKTVEELSKSGLKFGGIEELHDLFHNSSDPFDYYIGEHWTNVGDISKALIDVVVHRNFSLLCSRLELAHNSAVVPELSDHFGNFKYYVFESNAFSVPMEMIALKGFPF

>HvitIR12

NYIRDLYNFSYELQRTNSWGYLRNGSFDGVVGALQFKLADVGGSPLFLRGDRAQLIDYIAETWQSRQCFILRHPKHPGGILTIYTRPLTARVWYCIISMLGISGIVLSLMLKAKITTAGVKADSSFSIALLFVWGAICQQGMSIDRTTTAVKMVVFVTFIYALTLYQYYNATVVSTLLREPPKNIRTLEDLIKSNIKTGVEDVLYTKDYFKRTTDPIAIDMYQKKIVPDHQYNFFSADHGMALVKKGGFAFHVDSVAAYRIMRSTFTEREICEAHEVPMYPPQKMGLVVRKLSPYKEYFAYGVRRLFETGVMHRLRSVWDEPKPACVHTPDSSVFSVTLHEFSMALIALLA

>HvitIR13

LKPNISDIAILMISAISQQGSSTELKGTLGRIVMFILFLAFLLLYSSYSASIVALLQSSSNQIRTLSDLLNSKLELGVEDTPYNRYFFAIATEPVRKAIYQTKIAPRGITPKFMSLEQGVKKLQNEPFAFHMNIGIGYRLVERYFHEHEKCGLQEISYLYATKTYITCRKNSPYKEIFKIGLFRIQEHGLSDRETRLIYARKPACRARGGSFGSVNMVDFHPVLMMYLYGIILAFMFLFIEILVHKK

>HvitIR14

IITQPQHFKGWADLTVRHIDTFPKLTYPLLMLCARDLNFRYNLRQVDLYGEEHNGSFDGLAGLLQRSEIEVGVTSMFMRADRWAVLHFSSETVELRGAFIFRQPSQSSVSNVFLLPFSRGVWASCALVFAAAGALLAALAARLAPADPQLTQLTPAEAFTFAVGTICQQGSYMSPRAMSVRVVMFVTLLASLFAFTSYSAKIVAILQTPSDAIQTIDDLTRSPMTLGVQETTYKRVYFAESNDPATQRLYKRKLLPLGERAYMSVVDGVRQLRTGLFAFQVEESSGYDIISKTFTEREKCGLQRVQAFKMPMVAVPIRKLSGYRELFAARLRWQREVGLMGREKRVWLAARTRCEADGAGFLSVRLADVLPAVQVLASGAL

>HvitIR15

GVIVDYRESRVLSYRRKNLRNHTLTMVNVITDNNDTRNHMDDRLHLHQDSITKMSYNVVKICFEMLNASEKLVFTHTWGYRDKNGNWQGLVDHLIKKTGDLGTLSIFTKDRMEMIDYIAMVGSTAVRFVFREPPLSYISNIFTMPFTGGVWVAIVVCVLGCSVFLYIASKWEATMSMHQFQLDGSWTDVIILIIGAVLQQGCTLEPRYAAGRTVTLLLFLALTILYAAYSANIVVLLRAPSSSVRTLPDILNSPLKLGASDFEYNRYFFKKLNEPVRKAIYDKKIAPKGKKPNFYTMEEGVAKIRKGLFAFHMELNPGYRLIQETYREDEKCDLVEVDYINEIDPWVPGQKRSPFKDLFKINFIKIREAGIQSCIHHRLHVPKPRCSGTVSTFSSVGITDMYPAMLATLYGMLLAPAVLVMEIMYHRLTVL

>HvitIR16

NSRQNILWRKKALSGSIVIININSYTSTTQVLLFQTIHSGIKYSVMVKDSFYPHANASHFPEKAKNYMLILEETSELTRNILQLNKLPTWNPLAKAIVFYQLNKTEDREETAIQFINELRHYKLFKSIIFIYSPEDEEVISYSWIPYSNSNCGGECTSVYVLDKCKDNVIEQVAFQIEMFPYDMKSCPLVTYAIVSEPYVLPPERRLPGTVFDDAYIFKKGGEINLVKIITQFTNMTLIMRTSVVPENWGQIYWNGSASGALDVLRNDTADLVIGNIEVTRTIRRWFNPTVSYTQDEMTWCVPRAGQASTWNNLVIIFQWSTWVATFASLLIMGLVFHYLYYRENNKRVTKWPTNSLLMTFSMLLGWGASFEPKSATFRILIFGWLCFSVNMGISYESFLRSFLMHPRFEKQISTETDLIQSRIPLGGREIYRSYFETNNASSFYLYRKYNSTTFSEGVRRAALDRNFAVVSSRRQAAYQDQKLGRGKPLIYCFPESDNLYKYGVVL

>HvitIR17

VKRLSSNETTEDMSHTQNAALTLSAVARGQAAIAAAAFTVLSDPPPGINYSIAVSTQPYCFMIARPRELSRAMLFLLPFTADTWLCLGFGVLLMGPTLYVVHRLSPYYEAMEITRQGGLSTIHNCLWYVYGALLQQGGMYLPRADSGRLVVGTWWLVVLVVVTTYSGNLVAFLTFPKQEIPVTTISELLQNGIYTWSLPKDSYLEMQLKDSDEPKYVSLLKSSELTRGTGSMDANMSSWKYLLIKVREQRHVIFDWKLRLSFLMRADHIRTDTCDFALSVDEFMDEQLAMIVPSGSPYLPVINKEINRMHKAGLITKWLNTYLPKRDRCWKTSTVAQELNNHTVNLSDMQGSFFVLFLGFFSASSVLLIEWLCNRHKRRSENIIIKPYVE

>CpunIR1

MCSKTFLQYLLFALIVSAALSENSLLTTTGNSEQVAKTAECVLKLSAKYFVEKKALSGSIVIININSYASSTQVLLLKTIHGGIKYSVMVKDSFYHHANASHFPEKAKNYMLILEEKSELTRNILQLNKLPTWNPLAKAIVFYQLNKTEDAEETAIEFINELRYYKLYKSIIFIYSSEEEEVISYTWSPYSDTNCGGKCDSVYILDKCKDNVIEELSTQQEMFPSDMKGCPLVTYAVVSEPYVLPPVSKLTNTTYNDSYEFQKGGEINLVRIISQFTNMSLIIRTSDIPENWGNVYWNGTATGALEVLKNDSADLVIGNIEVTRTIRRWFHPTVSYTQDEMTWCVPRAGQASTWNNLVIIFQWSTWVATFVSLIIMGLVFHYLYYRESGKKATKWPTNSLLMTFSMLLGWGASFEPKSATFRILIFGWLCFSVNMGISYESFLRSFLMHPRFEKQISTETDLIQSRIPLGGREIYRSYFETNNASSFYLYRKYNSTTFAEGIRRAAQGRNFAVVSSRRQAVYQDQKLGRGKPLIHCFPESDNLYKYGVVLLARKWFPMLERFNNII

RSVSENGLINKWNEELFIHTVSGEGTNEIEPLSIQHLLGAFMFIGFMYAASILVFIMELCYGRLEKKKLTMNSKLTFRRKTNLMKK

>CpunIR2

MKMLTLIILFVIGTKAIINPHGPTIVNDYTNCLIHLMDTDFNNSGLLIFANTNHVSTSVINIRNKLLEYIHASGRYSVQVTSPGIEVAVCGEHDRNNFLQTFDKFEAVPLADYFVIIIDSYSEFTYLASKLLRNRSWNPRAKFAILLLNFVSDETSNTEHVENILTCLYRFNVVNIVVIVPEPNKIRNALIYGWRPYDPPKYCGYDNETAKNRLIKENICEKGKVKYNTGVFKDRLPSNMKGCVLYILALERQPFVSSDESEPNMEMMLINEMLATINYEPKYEILNAYRGEREITEWNGAIRELVSRRGNILLGGIFPDNDVHEDFECSTSYLGDSYTWVVPRAYPLPRGLSLILIFARNVWVVVVIVFFICAFVWRILGQLSRDTIRNKTIFHCFLSTWICTLGFCTYLRPKNETLRVFFVFFNLYCIMCLTAYQTKLIDVLRNPSFEHQIETVEELVSSDLKFGGFEELHDLFHNSSDPFDYQLGEKWVDVEDISQAMIDVAIHRNFSLLCSRLELAHISAKMPELSDGFGNYKYYAFEMNEFSVPMEIVSMKGFPFMKEFSKILANIKQLGSNAKVRRLFSAWNMRRRAKLLRTSNMQAADVVALSLRHLQGGFLVLLFGYVIGTLAFIGEIIVNSNYVHKKFSQCQKSFKKE

>CpunIR3

LTPILKGLNERKDLEKILVDLLNEMTRSDDEITCMTFVCDAVYLNVFDGDLFKRTVAVPIVMIVVEDYEDLLSPNFDTLESLREARKDGCNVYVILLANGLQTSRLLRFGDRYRILDTRAKYIMLHDYRLFHSDLHYLWKRIINVLFLRYHSISVGAPKSKAWFDLSTVPFPNPIKSVFVSRRVDIWNNGRFHYNRTLFADKTSNLNNEVLNVVYLDHVPSVVVTKTNETNKVGGVEIEILNTLAKQMNFQPKLYQPINADLYKWGQVQANGSFSGLLGEMVNGQADVALGNLQYNPYHLELTDLSIPYTSQCFTFLTPEALTDNSWKTLILPFKLYMWIAVLLVLLISGTIFFGLARYYMNLQEYKKTHVVSKDARTISEKEKENLDESEKPAGLYLFGEIINSILYTYGMLLVVSLPKLPTGWSLRLLTGWYWLYCILVVVSYRASMTAILANPAPRVTIDTLKELVESKIACGGWGTETKKFFQKSSDEIETIGQRFEIINDPFEAANKVARGVYAYYDNQDFLKYISVKRKNVDMNIESNVNATANGTEMTSMDVERNLHIMSDCVVNTPISIGFHKNSPLKPLADIYMSRIVEVGLVEKWLNDAMHPIKALETKEDEVKALMNLKKLYGAFIALAIGYSISTICLIGEFIHWHLVVKRDPKFDKYALDVYYMNKNKKQ

>CpunIR4

MATGLELILSSICNATFCEPIFDNPLLGRQDSPKDVKYNDMVNEINGKHLKIATYDNRPMSWVEKGENGTIIGKGVAFVIVNILQKKYNFTYEVVVPEKNFEMGGDNPQDSLVGLANSSLVDMVAAFLPKVNKYREKVSFSYDLDEGVWMMMLKRPKESAAGSGLLAPFDNAVWYLILIAVLSFGPCITLLTRLRNKMVPDGEKFIPLSPSFWFVYGAFIKQGTNLAPEANTTRVLFTTWWIFIILLSAFYTANLTAFLTLSKFTLDIETPQDLYKKNYRWVSPEGSAVQYVVNSPNEDLYYLSRMIGTGRAEFRTVPNSQDYLPLVDGGAVLVREQIGIDELMYGDYLKKAREGVAEADRCTYVVAPNNFMTKLRGFAYPRDSKLQYFFDSILTYILQAGIIDFLEKKDLPSTKICPLDLQSKDRQLRNSDLMMTYMIMVTGLAAAVAVFIGELFIKRYICKTKDEVTKPKRKKTKFEKRLRIHTYDDSQPPPYDAIFGRNPKIKVTERAQRKIINGREYLVIDVSNGETRLIPVRTPSALLYQLDK

>CpunIR5

MEIPLFLLIFFINLGCVVSELSLRFVFIIENHEPELGQLVGRALKVAEEQQDVRVDDSIVLLDRENEEESYGRFCSAISKGVSLIVDLSWSPWELAESVASGTGVPLVRTALSMQRLLSAVASHCASRNATDAALITESEADVDRALYELLGRSNIRLWVHAGLTRDSARALKNMRPDPSFYIIVGESGFVMDTYRRAVKEKLVRRDFRWYLLLTDYSGDSFDTSQLVLPTMMLHVDANECCKLLGSKDDCSCPSDLKRKQYILSGLMTYLAETYSKLENDLSVVTAKMDCDNIQASEMNVTRERVVRQFADDEQISNDTLFYWDGERSALYLRSTFVLSTFKPDSGLETVASWSANEEYKLLPGVTLEPLRPFFRVGTSPAVPWTLPKLDPDTGEQVYNEDGQPEYEGYCIDLIARIAETMEFDYEIITPKSGTFGKKLPNGSWDGVVGDLMRGETDLAVAALTMTAEREEVIDFVAPYFEQTGILI

>CpunIR6

MFLRYSYSPGDAVSKEVAMGRADIGVAGMYFTSERTYGLDMSFSHSQDCAVFITLMSTALPRYRAILGPFHWHVWVALTFTYLIGILPLAFSDKHTLRHLLHNSGEIENMFWYVFGTFTNCFTFLGKNSWSKTTKITTRLLIGWYWIFTIIITSCYTGSIIAFVTLPVFPETVDTIQQLLAGFYRVGTLDRGGWERWFFNSSDPNTNKLFKKLELVPNVEAGIRNTTKAFFWPYAFLGSQAELEYIVQANFSMAKSKRAMLHISDECFVPFGVSMAFPSNSLYSSKLSGDLRRMFQSGLIYKIVDEVRWEMQRSSSGKLLSAGAGSLKIVSAEEKGLTLEDTQGMFLLLAAGFLLAASALISEWMGGIGRRCRQLRNKLPSSANSKEQLVISSPDLESEVNDGTESRLQFGTRSTSAGSRDTLDGQVINVTEENIIVHELMVKGLDSRRSSSVDLDREVQEIFERDLRRRKIVTGDSIEVSEEKREPTASNGAFGDPLS

>CpunIR7

MINILRIIFTIQIDWVNKFILFFKYKNFISYLFTMMLDSVLSLMPIEILLQTIFNEYLSNSYCLTVVSEKPLDLHVNISYAYISVENGELSPDQMLKLSENGCSDYIVQVKNPQKFMGAFETVNLLGNVRRGDRKIVFLPYREDNATTTLLLEILTLKETSFIANILLILPSPEQSTCSYYDLVTHKYVGQDNEINQPYYIDRWNACTLNFEKNVSLFPHDMTNLYGKTLKVACFTYMPYVLLDLSEAQEPFGRTGTEIKIVDEFCRWVNCTVELVREDEHMWGEIYDNLTGVGVIGNLVEDRADIGITALYSWYEEYVVLDFSAPGVRTAVTCIAPSPRLLASWEEPLLPFSWYMWLALIFTFVYASLALTIAQGFTTDNAFLTTFGIMIAQSQHDVGASWRVRSVTGWMLLTGLVIGNAYGGGLASVFTVPKYEKSIDTVQDIVDRKMEWGATHDAWVFSLTSSNEPLIKKLVNQFKVYPADVLKKKSLDRSMAFSIERLPSGYYAIGDYITKEAMLDLTVMLEDFYFEQCVAMLRKSSPFTKKISQLIGRLHESGLLLVWETQVIHNTHRQSDNT

>CpunIR8

MQDMKTYEVLFILLMSCFSLIIANPINEFRMIADVIKDSNKSTSVVAHLCWNPSKQIQMASYLHNSELTQLVLLVNESWADIKEPQHRERLLLIADIDCPSTTAFFKMANETKKFSLPYRWLIIGKAVNKSTDVTADFDGLHLLPDSDVIIAQKNDNNSFYMSMIYKIKIKSKWIIEDFGTWTTNTGLIKSDLAQYSTSTRRKNFHGESFTTAMVIFDNKTISNLFDLSDILTDVVTKSSFRQIVPLYGYMNASQQHIYSKTWGYYRNGTFDGMIAELTVGDADLGGTVLIVTWDRMQVVDYLSKPGSITVKFVFREPPLSYQNNLYLLPFKVTVWYCMGAFVLVMGFILYITALWENKKMGENQEVLMDN

>CpunIR25a

YCNILIYKEFNMKAATENMRLLRTLLLFSFVRTAIFQTTQNINVLLINEENNALAEKAFEVAKEYVRRNPSLGLAVDPVIVVGNRSDAKTFLENVCRKYNDMLSAKKTPHVVLDFTMTGVGSETIKSFTVALGLPTISGSFGQAGDLRQWRALDANQTRFLLQVMPPADVLPESIRAIVTKQDITNAAIIFDELFVMDHKYKSLLQNIPTRHVITPVKSFNKDEIKNQLRSLRELDIVNFFVVGSLRTIKNVLDAADENQYFGRKTAWFALSLDKGDITCGCKDATIVYMRPTPDAKSRDRLGKIKTTYSMNGEPEITSAFYFDLSLRTFLAVKSLLDSGKWPNDMKYITCDDYDGKNTPNRTLDLKAAFQEVKETPAYAPFYIPEDDPMNGRSYMEFNTDLTAVTVKDGASIGSRLLGSWKAGLSNPLSLTDPDNMSDYSAQLVYRVVTVEQEPFIIRDDEAPKGFKGYCIDLIEEIRQIVKFDYEIVLSPDGNFGTMDENGNWNGIIKELIEKRADIGLTSLSVMAERENVVDFTVPYYDLVGITIMMKLPRTPTSLFKFLTVLENDVWLSILAAYFFTSFLMWVFDKWSPYSYQNNREKYKDDEEKREFTLKECLWFCMTSLTPQGGGEAPKNLSGRLLAATWWLFGFIIIASYTANLAAFLTVSRLDTPIESLDDLSKQYKIQYAPLNGSAAMTYFERMAHIEVRFYEIWKEMSLNDSLSDVERAKLAVWDYPVSDKYSKMWQAMKEAGLPNSIEEALQRVRDSKSSSEGFAWLGDATDVRYHVLTSCDLQMVGDEFSRKPYAIAVQQGSPLKDQFNNAILQLLNKRKLEKLKENWWTNNPKAMKCEKQDDQSDGISIQNIGGVFIVIFMGIGLACITLGVEYWWYKIRKRSVIGDVTQVEPAKMSRNNTDIKGEGFTFRSRNLGLSSFKPKF

>HassIR25a

MSTVTVLLLFHLVQIAFGQTTQNINVLLINEESNALAEKAFEVAKEYVRRNPSLGLAVDPVIVVGNRTDAKSFLENVCRKYNDMLLAKKTPHVVLDFTMTGVGSETIKSFTEALGLPTISGSFGQVGDLRQWRTLNANQTRFLLQVMPPADILPEAIRAV

VTKQDITNAAIIFDEFFVMDHKYKSLLQNIPTRHVITPVKSFEANEIKTQLESLRNLDIVNFFIVGSLRTIKNVLDAADKNQYFGRKTAWFALSLEKGDISCGCKNATIVHMRPTPDANSRDRLGKIKTTYSMNGEPEITSAFYFDLSLRTFLSIKSLLDSGKWPNDMKYITCDDYDGKNTPNRTLDLKTAFQEIKETPTYAPFFIPQDDPMNGRSYMEFSTDLLAITVKDGASISSHSLGSWKAGLSSNLTLTDPNNMSNYSAQLVYRIVTVEQKPFIIRDDKAPKGFKGYCIDLIEEIRQIVKFDYEIILAPDGNFGTMDENGNWNGIIKELVDKKADIGLASLSVMAERENVVDFTVPYYDLVGITIMMKLPRTPTSLFKFLTVLENDVWLSILAAYFFTSFL

MWVFDKWSPYSYQNNREKYKEDEEKREFTLKECLWFCMTSLTPQGGGEAPKNLSGRLLAATWWLFGFIIIASYTANLAAFLTVSRLDTPIESLDDLSKQYKIQYAPLNGSAAMTYFQRMANIEEKFYEIWKEMSLNDSLKEVERAKLAVWDYPVSDKYSKMWQAMEEAVLPNTIEEAIQRVRDSKSSSEGFAWLGDATDVKYHVMTSCDLQSVGDEFSRKPYAIAVQQGSPLKDQFNNAILQLLNKRKLEKLKEIWWNNNPETMKCEKQDDQSDGISIQNIGGVFIVIFMGIGLACVTLGVEYWWYKWRKRPVVGDVTQVEPAKSTRNNVDKQGEGFTFRGRNLGLTFKPKF

>HassIR2

MNLDDPDDYYIEDTVPYHANFIIISCQDYEELEELRQKLAASPYFHPLANILTYYHRREDKQTMAKLFFSAWYYKAINSILVQYSDEERTLLVSEYTPYVNEDYKVQPENKFGCWTARNLGMPVVGFDTGYVCVEKCHNVSIHTRLRANNLGTCIGFNTHVVSYNDFKHLRNLKLFEDRTKDLHGFVLRAYAVEVKPFFLIKKHENGTYTLSARDGMIWNTMAELFNFGIDLSPSVDVMMKPFNFEISIDQIFAFARRKGDLCLFPIYQFDVIVVGLDFTYPFKDSGICILSARAGFETSLFRIKTLRDNVSTIILFLACFACTWATFTVYKAAEKRHLSFDQIGKDFMNTCRQILMINLYKPPSHHFFRIFLAIALWCFFVINFTSQATIISFFTAVKRGKEVDTFEDVVAKGYPLEAMASPDLILPDTEEKFRIINSRLVNEVDIYGCVDRLKTDPRRFCLLDCSVGRYIKRNKLNDRGEQYLHIAEQDRIHSHYLAMVFSEHSPMTERFSKYMMILCEAGLIRKWEQYRYTDIKDDVTTKPLAFDDLSGIFQVFCFMVGNTLIIFFLELVASRIKTCCQNIKIPHGLPKRNIE

>HassIR7d.3

MIRVLRILVVVQLLLRNCYASSKLIETAVNISITTYNLHFTTTVIWKQNESECVTGFLQSYPGSVVLSPWATYNDSKVRDINETIGFKQTIYFANNLFEYEIIMELINEVIRFPIRFILVLENPVKSNSEISSFIEVTARNDQADLILISENDAGEVTLSTFFPYSEGVCGNYTPVFLKYGDELWPKKFSNFYQCPIRTALLEYFPYVTVHFEKGKITSVGGYDGKILMIILKKLNASLEVTSAYNNVFGTYVNGTATGSIGDLATEKADILIPADILTEKRYTVTLPSHTYHTVDIRWVGPKQREVYDWLKFIVPDKTNFTYLHLLVYILFVIVAMLVRKCKPQMTSATNRILYQSFIILLGQSAKFVTKSWLLNSLFVLWIWFCFFFRIDYQADLVDALQTLDLEPPFESIEEAVTKVEGYGGVEVVVDYYKDTPLERNYKVIPMNELKNYIRRIVEGENFILATDIALVKQLEPYVQILKKRISATGACFYMRPGWPAAKDVDDVIFSLVEAGFIENLLSDNNNHRWIVNRMNADDVLKPKSLSVEKLSTCFYGLVIMWVICFIILLIEIVHHNKHHNE

>HassIR8a

QEQDLTHEISKALKLAESGKSDVKLDDAIVVLDRETEEESYRMLCSSLSKGVSMIIDLSWTPWEMAEDLAAETGVPLVRTLLGSEQLVKALDDYLESRNATDAAIILESESDVDRTLYEMLGASNIRVWVHAGLTRDSAKALKTMRPEPSFYVIVGENGFIMDTYRRAVKEKLVRRDFRWNLILTDYSTLELSQLVLPTVILQADPGECCKLMKREDCSCPADFQRKQYILNALIQYIAEVYSKLDRDLPMVTTSINCEEPEATMNSTRDRLFRQFAEDTEISNETLFYWDMDRSGLFLRSRFILSTYKPTAGQQTIATWSADEEYKLLPGVELEPLKMFFRIGTAPAVPWTLMKLDPETGEQMYDDDGQPLYEGYCIDLIARLSETMS

>HassIR21a

FTNCFTFLGKNSWSKTDKITTRLLIGWYWIFTIIITSCYTGSIIAFVTLPVFPETVDTIKQLLAGFYRVGTLDRGGWEKWFLNSSDPQTMKLLNKLEFVPNVEAGIRNTTKAFFWPYAFLGSKAELEYIVQANFTATKSKRAALHISNECFAPFGITIGFPNNSVYSEKMSLDISRMIQSGIIDKIANEVKFEMQRSVTGKLLAAGSGTIKIPSAEEKGLTLEDTQGMFLLLGAGFIIAATALVSEWMGGFTRRCRFQRKNDTPISVNSREHLIPTPKTDIGSEIKIIGDTESKLHFDSRPSTAASRDTLEGQIINV

>HassIR75p.1

RNPVPNSRLELPGTATQRISEEPVPKVTVTKYGRIEDYRSSKVLSSRRHDLRGHTLTMSNVITDSNETRVHMNDRLNLHQDSITKMSYAVVKICFEMLNATERLMFTHTWGYKDKNGQWQGIVDQLLKKEADLGTLTIFTQERMMVVDYIAMVGSTAVRFVFREPPLSYISNIFTLPFSGAVWLAIFICVLGCSIFLYIASKWEASMGMHPLQLDGSWADVLILMIGAVLQQGCTLEPRYAAGRCVTLILFLALTILYAAYSANIVVLLRAPSSSVRSLPDLLNSPLKLGASDFEYNR

>HassIR75q.1

LCGILTFMSLERLKILEYFTSPTPIAARFVFRKPPLSYQNNLFLLPFTTGVWICLGAFVLILIVVLYINTKWDIKKYEQFNEQNMDQTCLPPTWSDTTIFVLSAISQQGSSNELKGTLGRLVMFIVFLAFLFLYTSYSANIVALLQSTSNQIRTLSDLLNSKLELGVEDVLYNRYYFSPAQSASDPIKKAIYETKVAPRGKPNFLTLEEGVKAMQKRPFAFNMNTGTGYRIVSALFQEHEKCGLQEIEYYQNAKGWLCSGKNSPFSEMFKVGYIRIQEHGLTDRENRLTYAKKPVCSVMGSSFDSVHMVDFYPVCLMLLYGMILAFILLVIEILAHRHQMRKHNQELNITQLQ

>HassIR75q.2

DLDCPDIDTYFEKNSARNVFRAPFRWIIFGNTSTNDDDIVPRAISNIDVLLDSEVLVLRSVDDVYEMHYIYKISPNNTWQTEFYGTWDAKHRFQKSPRFFEPTSLRRLDIDGYEISICYVLTNNESVNHLSDGLDDHIDTITKVNFPTTNHLLDFLNAKRKYIFANTWGYRVNGTWNGMTGYLVRGEVEVGGSPMFFTFERVSIVDYIASPTPTRSKFVFQQPKLSYENNLFLLPFNTTVWYSTIALVFIIYLVLLLVTKWEWKKTQDLIETREKDAGVLRANVVDIIVLIFGAACQQGSPSELKGSLGRVVMLVLFLALMFLYTSYSANIVALLQSSSSHIKTLEDLLHSRIKFGVHDTVFNR

>HassIR76b

MAGIELIISSICNATFCDVPYGGADKGSEVLTPEVINFKSLMQDVNGKNLKVTTYNNTPLSWTEHHNGTVVGKGVAFTVMEILRKKFNFTYDVIEPKRNYEWGGRAIEDSIIGLLNASKVDMAAAFMPTLIAYRKQVSFSIDLDEGVWVMMLKRPKESAAGSGLLAPFNDLVWYLVLAAVLTFGPCITFFTRVRTKLIADGEGVLPLKPSFWFVYSAFLKQGTNLSPEANTTRVLFVTWWLFMILLSAFYTANLTAFLTLSKFTLAIENPRDLYQKNFRWVASAGSSVEHIVKTEGEDLYYLSAMINNGKARFLSVLSDKDFLDPVKRGAVLVKEQTVVDHLMYNDYTSKKDVEESEKCTYVVAPNAFMKKQRAFAYPVGSKLKNLFDPALTQIFQAGILDFLKRSDLPSTKICPLDLQSKDRKLRNSDLIMTYLVMVAGSATAVAVFGAEIFIKRYLSVKVNKTKKPKDRNKKSKIGKKSTRYDDSRPPPYDSLFGKNPRFNVETTRTKIINGREYYVFETVNGDRKLIPARAPSSFLYRSDK

>HassIR75d

ALLLVALRAVLQRTRQRDDLALFTLPETLTFALGTLCQQGFHTTPGVTSVRLVMFSTLLASLFVFTAYSAKIVAILQTPSDALRTIDDLTRSPITIGVQDTTYKKVYFLESPDESTQQLYRRKILPQGERAYHSVVDGIARVRTGLFAFQVESSSGYDIIRQTFTEREKCSLKEIEAFKLPLVAVPMRKNSGYRELFATRLRWQREVGLMSRERR

>HassIR93a

RPRELSRALLFLLPFTTDTWLCLGLAVILMGPTLYIIHRMSPYYEAMEITRQGGLATIHNCLWYIYGALLQQGGMYLPRADSGRLVVGTWWLVVLVVVTTYSGNLVAFLTFPKQEVPVTTVAELLENRALYTWSITKGSYMEMELKNSDEPKYIALLKGAEMVTTSVGMGGTMTSGSALLQRVRFHRHVIIDWKLRLSYLMRADRLETDNCDFALSAEEFFDEKVAMIVPAGSPYLPVINKELDRMHKAGLITRWLEAYLPKKDRCWKASSMMQEVN

>DhouIR25a

MLVHTAILVSFIQATFSQTTQNINVLLINEENNALAEKSFEVAKEYVRRNPSLGLAVDPVLVVGNRSDAKAFLENVCRKYNDMLSAKKTPHVVLDFTMAGVGSETIKSFTAAIGLPTISGSFGQAGDLRQWRSLNLNQTKFLLQVMPPADILPEAIRAIV

VKQDITNAAIIFDEFFVMDHKYKSLLQNVPTRHVITPVKSFQKDEIKNQLRGLRELDIVNFFTIGSLRTIKNVLEAADENQFFGPKTAWFALTLDKGDISCGCKEATIIYMKPTPDAKSRDRLGKIKTTYSMNGEPEITSAFYFDLSLRTFLAVKSLLDSGKWPNDMKYITCDDYDGKNTPNRTLDLKAAFQEVKEIATYAPFLIPEDDPMNGRSYMEFTADVAAVTVKDGASIGSRSLGTWKAGLNSPLSLSDPDSMIEYSAKLIYRIVTVEQHPFIIKDETAPKGFKGFCIDLIDEIREIVKFDYEITVAPDGNFGSMDDNGNWNGIIKELIEKRADIGLSSLSVMAERENVVDFTVPYYDLVGTTILMKLPRTPTSLFKFLTVLENDVWLSILAAYFFTSFLMWVFDKWSPYSYQNNREKYKDDEEKREFTLKECLWFCMTSLTPQGGGEAPKNLSGRLLAATWWLFGFIIIASYTANLAAFLTVSRLDTPIESLDDLSKQYKIQYAPLNGSSAMTYFERMANIELKFYDIWKDMSLNESLSDVERAKLAVWDYPVSDKYTKMWQAMKEAGLPNSIEEAIQRVRDSKTSSEGFAWLGDATDIRYHVLTSCDLQMVGDEFSRKPYAIAVQQGSPLKDQFNNALLQLLNKRILEKIKENWWISNPNAVKCEKQDDQSDGISIQNIGGVFIVIFMGIGLACITLGVEYWWYKWRKRPTVGDVTQVEPVKTTRLDPDDTVTKDEGFNFRSKNLGLSTLKSKF

>DhouIR8a

MGVKECSCPGDLQRTQELLNSLLQYITEVYLKLSSDLTFTIKINCDNLQSSDNMNSTKDVMYNQFAEDSEGSNETLFFWKEDRQTLYLRSLFILSIYKPEQGLEKIASWNADEDYTLLPGVTLEPLRMFFRIGTSVAIPWTMHKLDPNTGEQMFTEDGQPVYEGYCIDLIDKIAEGLEFDYEIITPKSGGFGQKLPNGSWNGVVGDLMRGETDMAVAALTMTAEREEVIDFVAPYFEQTGILIVLRKPIRKTSLFKFMTVLRTEVWLSIVAALILTGFMIWLLEKYSPYSARNSPESYPYPCRDFTLKESFWFVLTSFTPQGGGEAPKALSGRTLVAAYWLFVVLMLATFTANLAAFLTVERMQTPVSSLEQLARQSRINYTVVEGSSIHQFFINMKFAEDTLYRVWKEITLNATSDQAQYRVWDYPIREQYGHILLAINASGPVVDAATGFQQVNEHTDADFAFIHDSAEIKYEVTRNCNLTEVGEVFAEQPYAIAVQQGSRLQEDLARALLQLQKERFLEQLASKYWNETARQACPDADESEGITLESLGGVFIATLFGLGLAMITLAWEVFYYKRKERNKVQAIDATIEKSGFEGPKKLNLEKRKFDIKEKLAKVSKLRRRDVGKKNVTFGDSFKPVGKKPGVSYISVFPKNEYMP

>DhouIR75q2

MFGAACQQGSPVELKGVLGRVVMLILFLTLMFLYTSYSANIVALLQSSSTQIKTLEDLLNSRIKLGVHDTVFNKYYFTTATEPTRKAIYEKKIAPPGAVPRFMSMEEGIKKMEKGLFAFHMEIGVGYKFVGKYFKEGEKCGLREIQYLQVMDPYLAVQKDTPYKEMFKIGLKRIQEHGLQNRENRFLYEKRPKCSGSESNFVSVSMVDCYPALLVLSYGTIFALLILTFESLWFHRHNIRNKIRCFLHEYKDRYH

>DhouIR75p

MPFRTSVWLAVLICCIISTATIYFATKWEARIVRSPTQLDGTVSDAMLLTMSAVSQQGCAMEPKKASGRIMLWVLFTALMALYAAYSANIVVLLQAPSNSIRTLHQLAHSKMTLAANDVDYNHFIFSLFKDPDHVSIYKIIQPEKGREQFYELNEGVEKIRQGLFAFHSIVEPVYRRVEETFLETEKCDLMEIDFLGSFDPFVPVKKDSPYLELLRVVFKRIRESGIASALAKRLQVEKPKCATKQTAF

>DhouIR75d

SDNRAFVSRFSWLLLHDGTHETNITESFFDINILPDSDVKISGTAYLLDIYKIKLNHPLVLTSLDLNRNSSLKELSSFWNNFPTPVKRRKHLNNVYLTAATIITQPQHFKGWSDLTNRQIDTYPKLTYPLMMLCSEDLNFRYNLRQVDLYGDELNGSFNGLAGLLQRNEIEVGITSMFMRADRFGVLHYSSETVSLTGAFIFRQPSQSAVSNIFLLPFSRDVWLASAAVFLSSGVVLALLSRQLFHMDSILSQLTPSEAFTFTLGTVCQQGFHVTPVLASARVVMFFTFTTGLFAFTAYSAKIVAILQTPSDAIQTIDDLTNSPMGMGIQETTYKKVYIAESNEPATQRLYRHKILPFGERAYLSVVDGISRVRSGLFAYQVKQSSGYDIISKTFEEHEKCGLKEIEAFSLPMVAIPIKKHSGYKELFASS

>DhouIR41a

VGLDSEVHQPLYLDRWNSITKAFEKNVNLFPNDIRNLQGKTVRVGCFTYKPYVLLNLDTAISPLDRDGMEMRIIDEFCRWVNCTVKVVNEEEGQWGELYDNQTGIGVIGSVVEDRADFGISALYSWYEEYRMLDFSVAGIRTAITCLAPSPRLLPSWELPFLPFTWYTWVAVILTFIFASIGLLIAKRCSADQVFLTVFGILISQSHYSADSTWKVRRVTGWLLITGLILASAYGGGLASSFTIPNYEPSIDTVQDLVDRKLEWGATHDAWIFSLTLSNQVDYKIFII

>DhouIR76b

MAGIDLIISTICNATFCEVIYDNPKELPQTRTQSELYYLAKEINGKHLKIATYDNYPISWVEKAENGTNVGRGTAFIIVEILQKRFNFTYELVVPERNYESGGVKSEDSLIGLLNSSKVDMVAAFLPKLTKFQKMVSFSHTLDEGVWRMMLKRPKESAAGSGLLAPFNSLVWYLILAVVFFYGPCITLLTRIRSKIIRDEEHHLPLSPSFWFVYSAFIKQGTSLEPEANSTRILFATWWIFIIFLSAFYTANLTAFLTLSKFTLEIENTIDLYKKNYRWVAQKGGSVECTVTDPSYDLYYLNKMLLNGRAEFRNVKSDIDYLPIVQGGAVLVKEQIAIDHLMYNDYLSKSRDGVEEANRCTYVVAPNPFMKQLRAFGYPYDSKLKLLFDSTLVYIQQSGIINFLINQDLPSTKICPLDLQSKDRQLRNTDLMMTYMIIVAGVCAALAVFIAELVIKRYVYLKIRKGDKSKRKKLRFNRDISQRFNDTRPPPYDSLFGNESENSIKKIINGREYYVFNKGNGVSKLVPVRAPSALLYR

>DhouIR21a

MNVTFSEEIEYYASESVFDSKKSLILEREIKRVKRNNILLIKNDTNVSKQRSLDLNIEIKEFKETKIKRAVDSTFHGYPKTREELWNERFLNESTAFDQTPSLIKLLHNITLTYLKDCTPVILYDNLVKNKESFLFQNLLKGFPVTFVHGYIDDNDELKEPKLLRTVKECLHFMIFLTDVKRSAKVLGKQSNSKVVIVARSSQWAVEEFLAGPLSRMFTNLLVIGQSFNEDVDNTLEAPYILYTHKLYTDGLGASQPVVLNSWTHGKFSRYVNLFPPKMTDGYAGHRFVVAASNQPPFVFRRIKTDLDGGNPRVVWDGIELKVLALLAERNNFSIEIIEPQEPNLGPGDAVAKEVSMGRADIAVAGMYLTSERIRDMDMSFAHSQDCAVFITLMSTALPRYRAILGPFHWHVWLTLILTYLFGMFPLAFSDKHTLRHLINNSGEIENMFWYVFGTFTNCFTFLGKNSWSKTTKITTRLLIGWYWIFTIIITSCYTGSIIAFVTLPIFPETVDTIDQLLSGFYRIGTLDKGGWERWFLNSSDSKTNKLFRKIEFVPNVEAGIRNTTK

AFFWPYAFLGSQSELEYIVQANFSKTKSKRAVLHISNECFAPFSVVMGFPNNSLHGKKLSNDISIMFQTGLIDKIADEVRWEMQKSSTGGFLSVGKGSLKIASAEEKGLTTEDTQGMFLLLAAGFLMGATALISEWMGGFSRKCCFKKTIPPKSISEEELAGTPDLEELNVLCNGTDSILDFGTGSTSASSRDTLHGKLINITEANILVHDDFNTDQWESRRSSSIDLDKEVKDIFEKDEKTRWQRMNTPFLDSAKSESTASKDAFGDRVK

>DmelIR25a

MILMNPKTSKILWLLGFLSLLSSFSLEIAAQTTQNINVLFINEVDNEPAAKAVEVVLTYLKKNIRYGLSVQLDSIEANKSDAKVLLEAICNKYATSIEKKQTPHLILDTTKSGIASETVKSFTQALGLPTISASYGQQGDLRQWRDLDEAKQKYLLQVMPPADIIPEAIRSIVIHMNITNAAILYDDSFVMDHKYKSLLQNIQTRHVITAIAKDGKREREEQIEKLRNLDINNFFILGTLQSIRMVLESVKPAYFERNFAWHAITQNEGEISSQRDNATIMFMKPMAYTQYRDRLGLLRTTYNLNEEPQLSSAFYFDLALRSFLTIKEMLQSGAWPKDMEYLNCDDFQGGNTPQRNLDLRDYFTKITEPTSYGTFDLVTQSTQPFNGHSFMKFEMDINVLQIRGGSSVNSKSIGKWISGLNSELIVKDEEQMKNLTADTVYRIFTVVQAPFIMRDETAPKGYKGYCIDLINEIAAIVHFDYTIQEVEDGKFGNMDENGQWNGIVKKLMDKQADIGLGSMSVMAEREIVIDFTVPYYDLVGITIMMQRPSSPSSLFKFLTVLETNVWLCILAAYFFTSFLMWIFDRWSPYSYQNNREKYKDDEEKREFNLKECLWFCMTSLTPQGGGEAPKNLSGRLVAATWWLFGFIIIASYTANLAAFLTVSRLDTPVESLDDLAKQYKILYAPLNGSSAMTYFERMSNIEQMFYEIWKDLSLNDSLTAVERSKLAVWDYPVSDKYTKMWQAMQEAKLPATLDEAVARVRNSTAATGFAFLGDATDIRYLQLTNCDLQVVGEEFSRKPYAIAVQQGSHLKDQFNNAILTLLNKRQLEKLKEKWWKNDEALAKCDKPEDQSDGISIQNIGGVFIVIFVGIGMACITLVFEYWWYRYRKNPRIIDVAEANAERSNAADHPGKLVDGVILGHSGEKFEKSKAALRPRFNQYPATFKPRF

>DmelIR8a

MELPLLVLLLALRFAGSEVLKITFWIEPVQRAEFDTDIAMVLKELDALRLDVKVDDTTLTLTRSEDGLDMQRFCEILSTVGASAVIDLTYSHWEEGYNLVRSLGIGYVRLERIMRPFLDMFGDFMRQKRANNVAMVFMNARDAVEAMQQMLVGYPFRTLIMDASQTDPGQHFLERIRSLRPAPTYIALFARAAAMNGIFEKVQKADLFQRPLEWHFVFLDTRDRVFKYRRQAELCTRFTLNPRAICRSMPMPDLYCGSGFTMQRAMLLNVLRSLINAAQVSPGYPLAIYQDCNATASSSEVSDPLEKDDYNWLDMVHWSNFLAYAPPLPHIQDQFQSPVPGLTFAVNISAGYYSSEHEAKTDLAAWSSVGEMRLLNETISPARRFFRIGTAESIPWSYLRREEGTGELIRDRSGLPIWEGYCIDFIIRLSQKLNFEFEIVAPEVGHMGELNELGEWDGVVGDLVRGETDFAIAALKMYSEREEVIDFLPPYYEQTGISIAIRKPVRRTSLFKFMTVLRLEVWLSIVAALVGTAIMIWFMDKYSPYSSRNNRQAYPYACREFTLRESFWFALTSFTPQGGGEAPKAISGRMLVAAYWLFVVLMLATFTANLAAFLTVERMQTPVQSLEQLARQSRINYTVVKDSDTHQYFVNMKFAEDTLYRMWKELALNASKDFKKFRIWDYPIKEQYGHILLAINSSQPVADAKEGFANVDAHENADYAFIHDSAEIKYEITRNCNLTEVGEVFAEQPYAVAVQQGSHLGDELSYAILELQKDRFFEELKAKYWNQSNLPNCPLSEDQEGITLESLGGVFIATLFGLVLAMMTLGMEVLYYKKKQNALEITQVRPVNDSSGSGGNSSTAPPTATSTTKQAWHIPVLEAEEKPAKVSPPPSFETATFRGKKLPARITLGDGKFKPRHGLYARRNLGASDSHSGYME

>DmelIR76b

MATGIELLVAAALCVACPPLNDSPPTNLIQMGENGTLSPVTELPMDVDASEAGFDADAPVETLETINRKKPKLREMLDWIGGKHLRIATLEDFPLSYTEVLENGTRVGHGVSFQIIDFLKKKFNFTYEVVVPQDNIIGSPSDFDRSLIEMVNSSTVDLAAAFIPSLSDQRSFVYYSTTTLDEGEWIMVMQRPRESASGSGLLAPFEFWVWILILVSLLAVGPIIYALIILRNRLTGDGQQTPYSLGHCAWFVYGALMKQGSTLSPIADSTRLLFATWWIFITILTSFYTANLTAFLTLSKFTLPYNTVNDILTKNKHFVSMRGGGVEYAIRTTNESLSMLNRMIQNNYAVFSDETNDTYNLQNYVEKNGYVFVRDRPAINIMLYRDYLYRKTVSFSDEKVHCPFAMAKEPFLKKKRTFAYPIGSNLSQLFDPELLHLVESGIVKHLSKRNLPSAEICPQDLGGTERQLRNGDLMMTYYIMLAGFATALAVFSTELMFRYVNSRQEANKWARHGIGRTPNGQSVAPSRWLRGWRRLNSGHGQLLGASTHGQNVTPPPPYQSIFNGGSHGDPLNRWRRPLANGNALGNGVLLGGDSEGGVRRLINGRDYMVFRNPNGQSQLVPVRSPSAALFQYSYTE

>DmelIR21a

MSYYWVALVLFTAQAFSIEGDRSASYQEKCISRRLINHYQLNKEIFGVGMCDGNNENEFRQKRRIVPTFQGNPRPRGELLASKFHVNSYNFEQTNSLVGLVNKIAQEYLNKCPPVIYYDSFVEKSDGLILENLFKTIPITFYHGEINADYEAKNKRFTSHIDCNCKSYILFLSDPLMTRKILGPQTESRVVLVSRSTQWRLRDFLSSELSSNIVNLLVIGESLMADPMRERPYVLYTHKLYADGLGSNTPVVLTSWIKGALSRPHINLFPSKFQFGFAGHRFQISAANQPPFIFRIRTLDSSGMGQLRWDGVEFRLLTMISKRLNFSIDITETPTRSNTRGVVDTIQEQIIERTVDIGMSGIYITQERLMDSAMSVGHSPDCAAFITLASKALPKYRAIMGPFQWPVWVALICVYLGGIFPIVFTDRLTLSHLMGNWGEVENMFWYVFGMFTNAFSFTGKYSWSNTRKNSTRLLIGAYWLFTIIITSCYTGSIIAFVTLPAFPDTVDSVLDLLGLFFRVGTLNNGGWETWFQNSTHIPTSRLYKKMEFVGSVDEGIGNVTQSFFWNYAFLGSKAQLEYLVQSNFSDENISRRSALHLSEECFALFQIGFLFPRESVYKIKIDSMILLAQQSGLIAKINNEVSWVMQRSSSGRLLQASSSNSLREIIQEERQLTTADTEGMFLLMALGYFLGATALVSEIVGGITNKCRQIIKRSRKSAASSWSSASSGSMLRTNAEQLSHDKRKANRREAAEVAQKMSFGMRELNLTRATLREIYGSYGAPETDHGQLDIVHTEFPNSSAKLNNIEDEESREALESLQRLDEFMDQMDNDGNPSSHTFRIDN

>DmelIR64a

MHWWLLVFLPLSCQGLPEHELLELELDYGLAEPQRTSLLQSSLILQFSQDYKHIPRITYFTCQKPHLQTPNQIPNAAEHRDAFAAKNFQLIKSLYESELFVRIVLLDVLAQSPTSGRPNRPGNGPTGGFSQTPSQAQSNSEWLEGVLRMEALRQIAVVDLACGAVSRRFLELASAKMLYSEKFHWLLIEDFAWHGRTQTAEGSGKRDDGEMEEEEPPGQQIQATDDEDLPSIESFLGGMNLYMNTELTLAKRMSEAAHYTLFDVWNPGLNYGGHVNLTEIGSFTPTEGIQLHTWFRTTSTVRRRMDMQHARVRCMVVVTNKNMTGTLMYYLTHTMSGHIDTMNRFNFNLLMAVRDMFNWTFVLSRTTSWGYVKNGRFDGMIGALIRNETDIGGAPIFYWLERHKWIDVAGRSWSSRPCFIFRHPRSTQKDRIVFLQPFTNDVWILIVGCGVLTVFILWFLTTIEWKLVPHDGSALIKPKGGAPPRHHYQQQQQQEQVEAPVRPITAVSVVVSKEKVEEKQEEYEDSTPIDAGTLWQRCYQKLNKYIKDRKAKQKKAPERVGLFLESVLFFVGIICQQGLGFSTSFVSGRCIVITSLLFSFCIYQFYSASIVGTLLMEKPKTIKTLSDLVHSSLKVGMEDILYNRDYFLHTKDPVSMELYAKKITSVPTTKENEADEDEPVDPNPVSTDPAKSYRDIVHSHETGAHAKDNAASNWLDPETGLLRHLGFAFHVDVAAAYKIIAETFSEQDICDLTEVSMFPPQKTVSIMQKNSPMRKVISYGLRRVTETGILTYHFNVWH

SRKPPCVKKIETSDLHVDMDTVSSALLILLFSYAITLMILGTEILYSKWHNRIQLKWVGAT

>DmelIR76a

MFVYTKEFEDKKDSYLSGYIFQDQPNILVITSQYLNSSTFEIKTNRFVGPRNFNKNPEPVEFYILQRFDAKGTKATWETQSAMSSKMRNLKGREVVIGIFDYKPFMLLDYLCELGKATIIL

>DmelIR93a

MNPGEMRPSACLLLLAGLQLSILVPTEANDFSSFLSANASLAVVVDHEYMTVHGENILAHFEKILSDVIRENLRNGGINVKYFSWNAVRLKKDFLAAITVTDCENTWNFYKNTQETSILLIAITDSDCPRLPLNRALMVPIVENGDEFPQLILDAKVQQI

LNWKTAVVFVDQTILEENALLVKSIVHESITNHITPISLILYEINDSLRGQQKRVALRQALSQFAPKKHEEMRQQFLVISAFHEDIIEIAETLNMFHVGNQWMIFVLDMVARDFDAGTVTINLDEGANIAFALNETDPNCQDSLNCTISEISLALVNAISKITVEEESIYGEISDEEWEAIRFTKQEKQAEILEYMKEFLKTNAKCSSCARWRVETAITWGKSQENRKFRSTPQRDAKNRNFEFINIGYWTPVLGFVCQELAFPHIEHHFRNITMDILTVHNPPWQILTKNSNGVIVEHKGIVMEIVKELSRALNFSYYLHEASAWKEEDSLSTSAGGNESDELVGSMTFRIPYRVVEMVQGNQFFIAAVAATVEDPDQKPFNYTQPISVQKYSFITRKPDEVSRI

YLFTAPFTVETWFCLMGIILLTAPTLYAINRLAPLKEMRIVGLSTVKSCFWYIFGALLQQGGMYLPTADSGRLVVGFWWIVVIVLVTTYCGNLVAFLTFPKFQPGVDYLNQLEDHKDIVQYGLRNGTFFERYVQSTTREDFKHYLERAKIYGSAQEEDIEAVKRGERINIDWRINLQLIVQRHFEREKECHFALGRESFVDEQIAMIVPAQSAYLHLVNRHIKSMFRMGFIERWHQMNLPSAGKCNGKSAQRQVTNHKVNMDDMQGCFLVLLLGFTLALLIVCGEFWYRR

FRASRKRRQFTN

>DmelIR87a

MSTPEQRFWLAALLFLLSQHSEVRGFGINLMKVQTEDKGQEACILALLRKYFDSGDGLSGSVLCINRNYQLPNIEEQLLRGVNNYENYPWSLLITNSREGPSPAKFLMNEKPQCYFLIVDNLEDEDLDEVFEHWKGMVNWNPLAQFVVYLASLEETDEEMNDLMVELLLTFINKKIFNVNVIGQSEENQFYYGKTVFPYHPDNNCGNRVISVELLDACDYPSEETDSEDENDEDEGDGAQEEDDGPQEEGDGEQEEEDGPQEQEDGDQAKGDEGQENDDGGLENKVENEFRIGASDDDELENDLSSNSSEPEAIIEEFFRAKFEDKFPRDLSGCPLTASFRPWEPYIFRNSEEQPVDDYYYGLQGDEDDYNDTSPNYGESDDESYADPGEDGDGAIPDTETQSGGKLKLSGIEYEMVQTIAERLHVSIEMQGENSNLYHLFQQLIDGEIEMIVGGIDEDPSISQFVSSSIPYHQDELTWCVARAKRRHGFFNFVATFNADAGFLIGIFVVTCSLVVWLAQRVSGFQLRNLNGYFPTCLRVLGILLNQAIPAQDFPITLRQLFALSFLMGFFFSNTYQSFLISTLTTPRSSYQIHTLQEIYSNKMTVMGTSEHVRHLNKDGEIFKYIREKFQMCYNLVDCLNDAAQNEHIAVAVSRQHSFYNPRIQRDRLYCFDRRESLYVYLVTMLLPKKYHLLHQINPVIQHIIESGHMQKWARDLDMRRMIHEEITRVREDPFKALTFDQFRGAIAFSGGLLLVASCVFAFELCYVKYVYRTEKRERKTKKITKKVHNIKIQHD

>DmelIR40a

MACNELHNGYRAKFLTIVYWIAATYVLADVYSAQLTSQFARPAREPPINTLQRLQAAMIHDGYRLYVEKESSSLEMLENGTELFRQLYALMRQQVINDPQGFFIDSVEAGIKLIAEGGEDKAVLGGRETLFFNVQQYGSNNFQLSQKLYTRYSAVAVQIGCPFLGSLNNVLMQLFESGILDKMTAAEYAKQYQEVEATRIYKGSVQAKNSEAYSRTESYDSTVISPLNLRMLQGAFIALGVGSLAAGVILLLEIVFIKLDQARLWMLCSRLQWIRYDRKV

>DmelIR11a

MRFAILWLFSGCLLPGIQVGIWVVVRAQPTGRDVLLSRLGNQQNELNTRRLANASSYLTRNYIANRINTLVVREICVECPYELSERQRQLVDQILASLAPELSVLLHKGTAEETTWEYTLFVVNDHTAFTGQVFIFPDELLEREFFCIVVVSEIQSRQFVRQTVGSIVKSNLQMHFVNVVVVAQLEDGTVGTYSYKLFKANCTPGITVRQINHFDRITGKPQQSMPDLYPVRNGHLGDCPFNVGAAHMPPHLIYKRHKDPPPASNVSIPAEDLAGIDWDLLQLLAKALKFRIQLYMPQEPSQIFGEGNVSGCFRQLADGTVSIAIGGLSGSDKRRSLFSKSTVYHQSNFVMVVRRDRYLGRLGPLILPFRGKLWGVIIVILLLAVLSTCWLRSRLGLSHPIEDLLTVIVGNPIPDHRLPGKGFLRYLLASWMLLTLVLRCAYQARLFDVLRLSRHRPLPKDLSGLIKDNYTMVANGYHDFYPLELTCRQPLDFSARFERVQRAAPDERLTTIALISNLAYWNHKHPNISRLTFVRQPIYMYHLVIYFPRRFFLRPAIDRKIKQLLSAGVMAHIERRYMQYENKRKVASNDPVLLRRITKSIMNGAYRIHGLVIVLATGMFILELLAGRSNGRLRRWMEWVQ

>DmelIR84a

MIKLQVKVISWPLIILTAFLRVLQIESINTNFLELAAFEDFLRSEHLSHVLVVRGDDADGDWKIECHQKLLANYRVQFYRPEMSANFEDLMFYGSPRTAVLVLNSEHVLVRRQVFGVASEAGYFNNSLAWFILGSGRESLPVEQLIDQLLSGYRMGIDAD

ITVALRGPDNASMLFYDVYRISRQANTPLIIEKKGLWTHSGGYQKFGNFKNTWVIRRRNFLNVTLIGSTVLTEKPPGFGDMEYLADDKQLQQLDPMQRKTYQLFQLVERMFNLSLAISLTDKWGELLDNGSWSGVMGQVTSREADFAVCPIRFVLDRQPYVQYSAVLHTQNIHFLFRHPRRSHIKNIFFEPLSNQVWWCVLALVTGSTILLLFHVRLERMLSNMENRFSFVWFTMLETYLQQGPANEIFRLFSTRLLISLSCIFSFMLMQFYGAFIVGSLLSESARSIVNLQALYDSNLAIGMENISYNFPIFTNTSNQLVRDVYVKKICKSGEHNIMSLQQGAERIIQGRFAFHTAIDRMYRLLLELQMDEAEFCDLQEVMFNLPYDSGSVMPKGSPWREHLAHALLHFRATGLLQYNDKKWMVRRPDCSLFKTSQAEVDLEHFAPALFALALAMVASALVFLLELFLHWLPDFRRRLGTMST

>DmelIR85a

MSIQWLKHILLLAILVNLAGTRENHIPLDLKKSSIVMVKMSQILCKARIKVLFVYFENQTSHEHTGQILKEVTKCDISNQNTPLEAVKDDGILMYMVMITTNISQPLELSLIRKKSAAKHRSHVFLLVRDADTVSDAWMRASFRQFWKIWLLNIVILYWRDGRLNAYRYNPFMDNYLIPVDNKPNEVPTLEQLFPKTIPNMQRKPLRMCIYKDDVRAIFWRQGTILGTDGLLAAYVAERLNATMMITRPHSYNNHNLSSDICFLEVAKEYVDVAMNIRFLVPDTFRKQAESTVSHTRDDLCVIVPKAKTAPTFWNIFRSFGSLVWALILVSVLVANVFCYILKSEVGRVPMQLFAGALTMPMTQIPPNHSIRLFLIFWLYFGLLICSAFKGNLTSMMVFQPYLPDINQLGALARSHYHIIIRPRHVKHIQHFLTLGHKHESRIREQMLEVSDTQMYEMMRNNDIRFAYLEKYHIARFQVNSRVHMHLGRPLFHLMNSCLVPFHAVYIVPYGSPYLGFLDSLIRSSHEFGFERYWDRIMNSAFIKSGVKVVNRRRGSGNDEPVVLKLQHFHAVFALWLVGIGMACIVLAWEHLTHNYNLAVTKRRD

>DmelIR54a

MWTVITGIVLWAPVLVAGSAVDFIFRAAAEHSLSVIMIRIDYCPYNWAKDIFENQTIPVVVLSDSETFINIRMFSRPLHVACLPGHELQKDLALLENFTSSLMDFPSQKKIVYISNNFSDPTRMDYIFETCYHRRIWNIVGLLASDEHRYFYRYHLYPSFRTEYRSLESSTIFDKDFPNMHGHPLTVMPDQWLPRSVLYVDRRTGKQILAGSVGRFFHVLSWKLNATLQLSKKVTTGRFLNATALKELSESFSVDVPASLTIMERVEQLASTSYPMEVTHVCLMVPVARRIPIKDIYFILSSASNMFLAIVIVSSYGLALNLLRNMTHRDVRLVDFVLNDKALRGILGQSFNLPLSRSFSTRLIFLMLGIVGLNVSSIFGAGLDTLMAHPPRQFQARSFAGLRRTKIPLVTTEEDFPTWMKLRVPMLVVNVSEYNHLRNGRNTSNAYFASRLYWNLFSEQQKRFTRELFIYSTDDCLWSLALLSFQWPQNSLFTEPVSQLILEVNANGLYDFWVGMHYYDMTAAGLSGLEDPSLQLKEREHPTSLRIVDFQWMWQAYGTFMVIAILVFLLEVSWHRITSLFVSLVY

>DmelIR68b

MKFLVGLLLQWYLPGIYALAEIACRIAVEQNVQVTYLYRCASCPASFDADYSALELDLYRCVGSRLPVITRNMEAHELEPFRRTDSLSIFQIPAAEKGDSLVRRILDMLNPHQRRKHMHKYLFVWPNAGRHQLLRLFRGSWAKKLLYGLAITGRENGTFDFDPFAWGGLQVIQRLDGEVPYARKVKDLRGYPLRFSMFTDPLMAMPRSPVETAGYQAVDGVAARVVGEMLNASVTYVFPEDNESYGRCLPNGNYTGVVSDIVGGHTHFAPNSRFVLDCIWPAVEVLYPYTRRNLHLVVPASAIQPEYLIFVRVFRRTVWYLLLVTLLVVVLVFWVMQRLQRRIPRRGVIQFQATWYEILEMFGKTHVGEPAGRLSSFSSMRTFLMGWILFSYVLSTIYFAKLESGFVRPSYEEQVDRVDDLVHLDVHIYAVTTMYDAVRSALTEHQYGLLENRSRQLPLGIATSYYQPVVRRRDRRAAFIMRDFHARDFLAITYDSQAERPAYHIAREYLRSMICTYILPRGSPFLHRLESLYSGFLEHGFFEHWRQMDLITRVGASPDAEEFLEDLGDQTDTDSGSNELAIRNKKVVLTLDILQGAFYLWSVGIGISCLGFAVEHAHWFWRRQTLRNAVEARTS

>DmelIR75a

MQLVQLANFVLDNLVQSRIGFIVLFHCWQSDESLKFAQQFMKPIHPILVYHQFVQMRGVLNWSHLELSYMGHTQPTLAIYVDIKCDQTQDLLEEASREQIYNQHYHWLLVGNQSKLEFYDLFGLFNISIDADVSYVKEQIQDNNDSVAYAVHDVYNNGKIIGGQLNVTGSHEMSCDPFVCRRTRHLSSLQKRSKYGNREQLTDVVLRVATVVTQRPLTLSDDELIRFLSQENDTHIDSLARFGFHLTLILRDLLHCKMKFIFSDSWSKSDVVGGSVGAVVDQTADLTATPSLATEGRLKYLSAIIETGFFRSVCIFRTPHNAGLRGDVFLQPFSPLVWYLFGGVLSLIGVLLWITFYMECKRMQKRWRLDYLPSLLSTFLISFGAACIQSSSLIPRSAGGRLIYFALFLISFIMYNYYTSVVVSSLLSSPVKSKIKTMRQLAESSLTVGLEPLPFTKSYLNYSRLPEIHLFIKRKIESQTQNPELWLPAEQGVLRVRDNPGYVYVFETSSGYAYVERYFTAQEICDLNEVLFRPEQLFYTHLHRNSTYKELFRLRFLRILETGVYRKQRSYWVHMKLHCVAQNFVITVGMEYVAPLLLMLICADILVVVILLVELAWKRFFTRHLTFHP

>DmelIR60a

MWCNNPGLIIIIFLGQILNLCQGIVNLSNETANTVIFMLPEKDLGPDVWKAGVGCLDSFAQIFFFRNPKERFTRAYNLMLVHAFHLSSPADQIQEGFSKLINEAVTNPGPPDREELFQMRVASDYNITNGTEDKGELILADNYVIVVDSVDRLKELMKKKIVEMRSWNPGARFLVLFHNATCRNRPLGVASNIFKDLMEMFYVHRVALLYANSTMNYNLLVNDYYSNVNCRILNVQSVGQCHDGKLYPNNAVVKASMQDYVSGFSPRNCTFFACSSISAPFVEADCILGLEMRILGFMKNRLKFDVNQTCSLESRGEMDGPANWTGLLGKVQNNECDFVFGGYYPDNEVADHFWGSDTYLQDAHTWYIKMADRRPAWQALVGIFEAYTWIGFILILIISWLFWFTLVMILPEPKYYQQLSLTAINALAVTISIAVQERPICETTRLFFMALTLYGLNVVATYTSKMIATFQDPGYLHQLDELTEVVAAGIPFGGHEESRDWFENDDDMWIFNGYNISPEFIPQSKNLEAVKWGQRCILSNRMYTMQSPLADVIYAFPNNVFSSPVQMIMKAGFPFLFEMNSIIRLMRDVGIFQKIDADFRYNNTYLNRINKMRPQFPETAIVLTTEHLKGPFFILVVGSCWAALTFIGELIIHRWRTQLVSTSEQQDRRSDKRRRRRRRRKPEKDNRWQRQVQVAPVVRFTPVKRRKVFQGQTSQK

>DmelIR48b

MILQQSSNLLKLLLLLAISSVRTQGLNDIIIELNQRLLISNNFLYCNQSDKLNEYEIKYLQHMPPISLMIFTSIESMNFTQVEYNLGADNKLFLIMGNEEPPYDFLHALNLHFQFAEYIIVIDEPVDLKKSTKWLDFVNHLWQQGYVQLLIYTSYDEKLYHKIIFPETVIEETLVEQYISIRGSFNNLYGYPVRVAAYNNAPRSMLYVNRWGKHIFAGFYMRFLRAFIDARNGSFVPVLTPSNSPGNCTLNLVNETVDVCADALAANPAAFSLTHGFRIASANVLVTHAKPLHSYRYLTAPFQWSVWACLVIYVLLVVNFLSFIGWLRSGKWEFSKYLLEVFSSLLFSGFYLKEIRGRERYILFGVLFIAGFVYSTEYLGLLKSMLISEVFEKQIDTFEALVESNITLMVDPYDKILFAKYNMPEILSPIMELVSFETLLKHRNRFDQDYAYILFSDRMALYDYAQQFLKHPKLLRIPIDFSFLYTGIPMRKRWFLKHHLGRAWYWAFESGLTRKLALDADFEAVRVGYLSFLITEHVEAQPLNVDYFVMPAIALAIGYILALLSFVIEMTAWRIREFLGCRKATMTSTGCSEGGHVDVD

>DmelIR7d

MDIRCVVALLLGLCKVQAVVWPHQHLLEEQLASQISATLQKIFINGLAVYNFGVFISTSYEEMDRDRVILVHQVLNRNLYPPNFPVAVVLASKMNRKITAQVFTQLLFVQNAEQAIAIAEGVNRNGLCVIVLLTSQPERPIMTKIFTYFMQERYNINVVILVPRLHGVQAFNVRPYTPTSCSSLEPVEIDIKDGDLWDVFPRRLKNLHGCPLSVIVWDIPPYMRINWKSSDPMDGLDGLDGLLLRIVARKMNFTLKLIPNEPNGLIGGSSFMNGTFTGAYKMLRERRANITIGCAACTPERSTFLEATSPYSQMSYIIVLQARGGYSIYEVMLFPFEKYTWLLLSTILGLHWIVGSRWRMPSPILAGWMLWIFVIRASYEASVFNFIQNSPVKPSPRTLDQALSGGFRFITDHASYRMTLKIPSFQGKTLISAGQPVDVFDALLKAPWKTGAFTSRAFLADHLVRHRKHRNQLVILAEKIVDNMLCMYFPHGSYFAWEINKLLFNMRSFGIFQHHSQILAWDNLPTTTDTDTPGKRIHSSTESVATGFAESMSFVVAALNCLMGALCISIVVFGLELLSRRRHWTGLEWLFERV

>DmelIR7a

MFHHLWLLMGLRSLAMGALHPPQPEAMTPLVAAALEILAEQVSPSQSTLAVMDLTQDAEHRDERQEQLMTIILRSVGSEMALRTFQKPPAEVPASFVVFLVNSAQAFNTLGFHFTDIHSTREFNFLILLTHRMSSRAERLQVLRDISRTCVRFHTSNVILLTEKRDGVVLVYAYRLLNMDCDLSVNLELIDIYKNGLFRHGHEARSFNRVLSLSGCPLQVSWYPLPPFVSFIGNSSDPEERAQIWRLTGIDGELIKLLASIFDFRILLEEPCNKCLSPDIKDDCSGCFDQVIISNSSILIGAMSGSHQHRSHFSFTSSYHQSSLVFIMHMSSQFGAVAQLAVPFTVIVWLALVVSSLLLVLVLWMRNRLVCGRSDLASHALQVLTTLMGNPLEARSLPRSSRLRILYAGWLLLVLVLRVVYQGKLFDSFRLPYHKPLPTEISELIRSNYTLINQEYLDYYPRELTVLTRNGSKDRFDYIQGLGKEGKFTTTSLIATMEYYNMMHWSTSRLTHIKEHIFLYQMVIYLRRHSLLKFAFDRKIKQLLSAGIIGYFVREFDACQYRKPFE

EDYEVTPIPLDSFCGLYYISLIWLSAAVVAFILELLSQRIVWLRRIFE

>DmelIR67c

MFCWLIFLNIILLSDRSESWSAREVIHQFNHDQQLQLNIYLDCNDVELQIGQEVSNLFVNSTADKMKILGRFSSHSLIIACFKDSTRNRTLNGVKELLWGLQYLPILFVVDSNMDFYFQQALRHGFIHVLALNFMNGSLYTYKPYPKVEVHQIKDMQKFY

KLTKLRNLQGQAVRTTVETMTPRCFRYRNRHGQLVYAGYMYRMVKEFISTYNGTEEHVFGNVDTVPYKEGLAALKNGEIDMMPRIIHALEWYYFYRSHILYNIKTYIMVPWAEPLPKSLYFIQPFRGTVWITIMVSFVYASIVIWWIRYRQQGNSSLTQSFMDVLQLLFQLPLSKIWHFNMGTHQVVSFIVLFVFGFMLTNLYTAQLSSYLTTGLFKSQINTFDDLFREKRTLLVESFDAEVLHNMTKEKIIQKEFESIILITSIEEVFKHRKSLNTSYAYEAYEDRIAFELSQQRYLRVPIFKILKEVYDQRPVFVALRHGLPYVELFNNYLRRIFESGIWIKLQEDSFLEGIASGEISFRKSKSREIKIFDKDFYFFAYILLGMGWCVSTIALFLELWSFKYSV

TNVLHEG

**GRs**

>HvitGR1

KQKSNPIFLDVTPARTPYMKPTSPNAIEPLRNNLVNPRANRDIVYENIKPVFTILRIMGVLPITRVAPGKNEFQIASPSMLYSIFVYFSMVGYVLYLSLNKVQILRTSEGKFEEAVIEYLFTVYLFPMIVVPVIWYETRKIAGVLNEWHNFETAYRHLSNRILPITLYKKALLIAIIIPVLSTTSVIITHVTMVHFKPMQLIPYVFLEILTYILGGYWFLLCETLSVCANVLAEDFHQALRNIGPAKKVSDYRALWLRLSKIARDTGIANCYTFTFVSLYLFLIITLSIYGLLSQISEGFGIKDIGLALTACCSILLLFFICDEAHYASHNVRTNFQKKLLMVELSWMNTDAQTEVNMFLRATEMNPSQISLGGFFDVNRTLFKSLMATMVTYLVVLLQFQISIPDESQNQMVEEE

>HassGR1

WSLSFAVILSQHYLQDDFELWHSFAYYHIIAMLDGFCSLWYINCNAFGTASRGLAMNLHKALEAEHPALKVAQYRHLWVDLSHMMQQLGRAYSNMYGIYCMVIFFTTTISLYGALSEILEHGLSYKEMGLFVIVGYCMTLLFIICNEAYHASRKVGLEFQVRLLNVNLGAVDRSTQREVEMFLVAISKNPPIMNLDGFTNINRELFTANVSFMSTYLIVLMQFKLTLLRQSARKTLKTIVRAVFNTTTTILDDDFTD

>CpunGR1

RKYFTAENNDLSFFGLFKPLYVMLSFVGIFPYSLRHKTKHKYAIIPSTIYVRIILIVSLLTVLIVFLVLRTIYKLNEKDMFFGFIVFANNIVEMLFGLPCCMVGYFCVYRNRYKVIRILNAMESAWFQLPMTQNDILKTLRSRIVFNFIVMSCMLVAQIIVTLLRSEGFWKVLLVLMTFIYPQIILFLMLMFYDVYVLMLVALLANVEESIKLLGRNKCIGSVLGSITIVESKVTVVSLRAIERIFVNAYEIKRDINDVFQASLLMMSLQSFHAIISASHIIYHAFVFKWGLTLPQSLIYTLWTVYHCMKIYAVSYSGNLLSTAIQHFTSLISYQANEITVYGFFSIDGTFIFNITASTAMYFIILVQFDTS

>HarmGR1

MGQTSFRRNMSFWIPVKKNKVDVAKPKVKNITSFQDALRVTVIIGQVFSLLPFVGVFTNVASNVKFVKTSWKCVYSLLSLIGQMFMAVLCINKLAKTTVSLNGTSPVIFYVTTCVTMMLFFQVARRWPALVQHISKAEDMDPNFDCSLTRKCNITCAVVLILALCEHILSLLSAFAGASACYSGMDTYEGFVTHFYPWVFSYLPYSIVLGVITQFLHFQSTFIWNFSDLFVICMSYYLTSRLEQVNRKLLAAQGKYLPEIFWRATREDYCRATQIVRKVDEVISGVVFISFANNLFFICLQLFNTLEDGLKGTGECTPKLKKIVVSKSGPLGGHEAAAYFLFSLVYLLSRSVAVSLIASQVNSASSVPAPVLYDVPSPVYCVEVQRFLDQVNGDKVALSGLQFFSVTRGLLLTVAGTIVTYELVMFQFNSSTPTLNITSPTVVTHTITTLAT

>HvitGR2

MGHKQMKKSFSFWIPAKKNKVHVTKLKPFRKQATFQRCLRVTLIIGQLFSLIPVKGVSSNSSADVRFTFKSWKCLYALLSLLLQIFMTVTCLHKLFSSVTSLNATTPVIFYGTTCLTMLMFFKVARAWPGLVHHISKNEDLDPNFDGKLAYKCNITCGIVLLLALLEHILSLLSAFAGAMVCQANKSFYEGFVTHFYPWVFTLMPYSAVLGALTQFIHFQSTFIWNFSDLFVICMSYYLTSRLQHINEKLLAAQGKYLPEIFWKTTREDYCRVTQLVRRVDEVISGIVFISFANNLFFICLQLFNTLEDGIKGNGQCSSRSKVTHLLGGYEAATYFLFSLVYLISRSIAVSLIASQVNTASTVPAPVLYDVPSPVYCIEVQRFLDQVNGENVALSGLQFFSVTRSLLLTVAGTIVTYELVMFQFT

>HassGR2

GYERIMILRSIRRFDEYIYAILFVIFLVPHFWIPFVGWGVAHQVAIYKTNWGKFQVRYYRVTGENLKFPNLKTTIVIISVGCLLLAVCFLLSLCILMDGFLLRHTTAYYHIITMINMNCALWYINCKGIKIASQSLSECFRRDVEAECSAKLISRYRYLWLNLSELLQSLGNAYARTYSTYCLFMFANITIAVYGALSEIVDHGFGFSFKEMGLFVDAAYCSTLLFIFVDCSHNSTLTVAAGVQDTLLSIDVLAVDRPTQKEIDHFIQAIEMNPAVVSLKGYAHVNRELLTSAISMIAIYLIVLLQFKISLPRDPQIVAT

>CpunGR2

MFSSAKKYFTDKNQDLTLLRLFKPVYIFFTMFGLFPYCMKFKTKHICVIIPRSIYLNILCAITVNIVLCIFGGMDIRNKTIEIIAGEGATVTQVNYILEVVLLQISCFSSYISIYYYRHRLVHILNDMASTWLELPSTNNRILENLRSHIIVTIIIPLFLTFLQIIMNCVWRVEWSTTLITIAYTCLEAVQLIALMFYYLLVLMLVALLSNVEEAIKTIHKTKPVSDNFTKIDGRVSTIQVRSIELTCVKAFEIKREINDAFQATILLNCLQSFHSIVSETHGIYYGLLVDKSLETDVVINVTLWVLCSLMKIYAFAYSGNLINLVVSGKPLR

>HarmGR2

MTIPDHLFDEGINNTLLQHDMRHVQQNRIVYEKTQREYEQEQRDMLSSQDGDTCEIHDQFYRDHKLLLVLFRALAVMPITRSRPGTITFSWRSTATMYAVCFYIAATAVVMIVGYERIMILRSIRRFDEYIYAILFVIFLVPHFWIPFVGWGVAHQVAIYKTNWGKFQVRYYRVTGENLKFPNLKTTIVMISVGCLLLAVCFLLSLCILMDGFLLRHTTAYYHIITMINMNCALWYINCKGIKIASQSLSECFRRDVEAECSAKLISRYRYLWLNLSELLQSLGNAYARTYSTYCLFMFANITIAVYGALSEIVDHGFGFSFKEMGLFVDAAYCSTLLFIFVDCSHNSTLTVAAGVQETLLSIDVLSVDRPTQKEIDHFIQAIEMNPAVVSLKGYAHVNRELLTSAISMIAIYLIVLLQFKISLPRDPQIVAT

>HvitGR3

GVYGAPIRMKKMMKFMNRVSSVDTSIGGQYSVVSERKLCAILLSVLIFFSLLVIDDFCFYALQAKKINRHWDIVVNYIGFYLLWYVVMILELQYAFTAMSVRARFQAVNDTLALAARDIAMPLEKIKRATPLNIFAIRVTPTDTQRVDDVSLLVETMPKKQHALVLRRCVGGEPRLLVTPCEAVHLLASLYGTLCEVVHRIDDSYGIPLIVILISALLHLIVTPYFLIMEIIISNTHRIHFLVLQFLWCAIHLIRMFIVVEPSHYTIMEGKRTEGLVCRLMLAPPTGGLSSKLELFARQLMLRSVSYSPMGMCTLDRPLVASILGAVTTYLVILIQFQRY

>HassGR3

MTVPIPNGFPVQINSKPKNKIIFLDVTPVSTPIKPHSPNVVAPMRNNLVAPHISNDIIYENIKPVFTLLRIMGVLPITRPSACVNQFQIASSSMLYAILVFISLVSYVLYLSLHKVQILRTAEGKFEEAVIEYLFTVYLFPMIAVPLLWYETRKIANVLNGWVDFEMVYKQLSGRTLPVKLYKKALAMAVIIPILSTTTVIVTHVTMVHFKPMQLVPYVFLEILTYMLGGYWYLLCETLSICANILAEDFQNALRHIGPAGKVAEYRALWLRLSKLSRDTGIANCYTFTFVNLYLFLIITLSIYGLLSQISEGFGIKDIGLALTAFCSISLLFFICDEAHYASHNVRTNFQKKLLMVELSWMNTDAQTEVNMFLRATEMNPSQISLGGFFNVNRTLFKSLLATMVTYLVVLLQFQISIPDESQNRDEEEEVPYNITSATTEAMTTSTTTIMTTVLTTLAKKKKKN

>CpunGR3

MVPGVELANEGRGDVAPAPASPDSVTHCVVGGAHAFILRITSFFGLAPLRFEPRANGFTVSISFAMTVYSFILVTILIASTIFGLVAEINVGVELSVRMSSRMSQVVSTCDVLVVVVTAAVGVYGAPRRMRDMLKVMDRVATVDTTVSGHYSLVSERKLC

ALLLAILLFFSCLIIDDFCFYTLQAKEVHREWDIVLNYIGFYLLWYVVLLLELQFAFTALS

>HarmGR3

MSFHTSNSLFPMTVPIPNGFPVQINSKPKNKIIFLDVTPVSTPIKPHSPNVVVPMRNNLVAPHISNDIIYENIKPVFTLLRIMGVLPITRPSACVNQFQIASSSMLYAILVFLSLVSYVLYLSLHKVQILRTAEGKFEEAVIEYLFTVYLFPMIAVPLLWYETRKIANVLNGWVDFEMVYKQLSGRTLPVKLYKKALAMAVIIPILSTTTVIVTHVTMVHFKPMQLVPYVFLEILTYMLGGYWYLLCETLSICANILAEDFQNALRHIGPAGKVAEYRALWLRLSKLSRDTGIANCYTFTFVNLYLFLIITLSIYGLLSQISDGFGIKDIGLALTAFCSISLLFFICDEAHYASHNVRTNFQKKLLMVELSWMNTDAQTEVNMFLRATEMNPSQISLGGFFNVNRTLFKSLLATMVTYLVVLLQFQISIPDESQNRDEEEEVPYNITSATTEAMTTSTTTIMTTVLTTLAKKKKKN

**SNMPs**

>HvitSNMP1

AGAGLFGILFGWVLFPALLKSQLKKEMSLSKKTDTRGLWEKVPFALNFKIYMFNYTNPAEIQKGAIPIVKEVGPYHFDEWKEKVEVEDHEEDDTITYKKKDAFYFRPDLSGPGLTGDELIITPHLLIIPVTTLVHRDKPAMLNMIGKAFNGLFNNPEDVFMRVKVMDLLFKGTMINCDHKDFAPKALCTGMKKESVSGLVLEANNQFRFSIFGGRNATVDTHVVTVKRGIQNVMDVGKVVAMDGKTEQDVWTGHCNQFEGTDGTIFPPFVSANEKIESFSGDLCRTFKLWYEKKSSYKGIKTNRYISNIGDLANNDELRCLCDAPDACPPKGFMDLYKCTKAPLYASLPHFLDCDPKYLKDIVGLNPDVNEHGIELDFEPISGTPLTAKQRVQFNIILLKTDKMELFKNLPGTMAPLFWIEESLVLPNSFIKMLKNMLFLPKRVVGVIRWVLVSIGVVGIIATCVKHYKERIVQYALSPASATVTKVNPEENNNNQPKDISVIGEPQPPPKVDM

>OfurSNMP1

MQLQKPLKIGLGMMGAGLFGIIFGWVLFPVILKSQLKKEMALSKKTDVRAMWEKIPFALDFKVYMFNYTNVEEIMKGAAPIVKEIGPFHFDEWKEKVDIEDHDEDDTITYKKRDYFYFRPDKSGPGLTGEEVVVMPHLLMLSMATIVNNEKPAMLNMLGKAFNGIFDEPKDIFIRVKVLDLLFRGIIINCARTEFAPKAVCTALKKEGATGMTFEPNNQFRFSLFGMRNGTIDPHVVTVRRGIKNVMDVGKVIAIDGKTEQDVWRDKCNEFEGTDGTVFPPFLTEKDNLESFSDDLCRSFKPWYQKKTSYRGIKTNRYVANIGDFANDPELQCYCDSPDKCPPKGLMDLMKCMKAPMYASLPHYLDSDPQLLKDVKGLSPDANEHGIEIDFEPISGTPMVAKQRVQFNIILLKTDKMDLIKDLPGTMTPLFWIEEGLALNKTFVKMLKNQLFIPKRIVSVVKWLLAGVGFVGLVGSLVYQFKGKMINFALSPSSAQVTKVNPEINQQNQPKDISIIGESQNPPKVDM

>CmedSNMP1

MQLQKHMKIGLGTAGAGIFGILFGWVLFPVILKSQLKKEMALSKKTDVRAMWEKIPFPLNFKVYMFNYTNPEEVQKGGIPIVKEIGPYHFDEWKEKVGIEDHEEDDTITYKKRDVFIFRPDLSGPGLTGEEIVVIPHVLMMGIATIVNKEKPTMLGMLSK

AFNGIFDEPKDVFLRAKVLDLLFRGIIINCQRTEFAPKAVCTALKKEAATGLSFEANNQYRFSLFGLRNGTIDPHVVTVKRGIKNVMDVGKVIAVDGKPEQDVWKDKCNEYQGTDGTVFPPFLTEKDNLESFSGDLCRSFKPWYQKKTSYRGIKTNRYVANIGDFANDPDMQCFCDTPDTCPPKGVMDLMKCMKAPMYASLPHFLDSDPNLLKHVKGLSPDANEHGIEIDFEPISGTPMVAKQRVQFNMLLLKADKLELIQDLPNTLSPVFWIEEGLALNKTFVKMLKTQLFIPKRIVGVVKWLLVTVGVIGMIGTAVYHYKGNIAAFALKPSSATVTKVNPETQNQPKDISVIGEPQNPPKVDM

>CsupSNMP1

MQLPKHLKIGAGTAAAGVFGIIFGWVLFPAILKSQLKKEMALSKKTDVRGMWEKIPFALSFKVFLFNYTNVEEIQKGGVPIVKEIGPYHFDEWKEKLEVEDHEEDDTITYKKRDVFYFRPELSGPGLTGEEIITMPHILMVSIATVVNKEKPAMLNMIGK

AFNGIFDGPQHVFMNVKALDIMFRGTIINCARTEFAPKAVCTAIKKEASGLIIEPNNQFRFSLFGMRNDTIDPHVITVKRGIKNVMDVGQVVAVDGNPEQSIWRDSCNMYEGTDGTVFPPFLTENDRLESFSTDMCRSFKALYQKKTSYKGIKTNRYVVTIGDLANDPDLQCFCEAPEKCPPKGTMDLMKCMNAPMYASLPHYLDCDPEVQKKVKGLNPDVNVHGIDIDFEPISGTPMVANQRMMFSLVLQQIDKLDLFKDLPGTMTPLFWIEEGIALNKTFVKMLKNQLFVPKRIVGALRWLLVAVGVCGVIVTGIIHYKGSILGFTLPRGSATVAKVNPETNQPKDISVIGNAQSPPKVDM

>HvitSNMP2

AAWGFPKIVSKQIQKNVQLDNSSVMFEKWRKLPMPLTFKVYVFNVTNVEDVNTGARPKLAEIGPYVYKEYRERTILGYGENDTIKYMLKKHFVFDPEASGGLTEDDEITVINFSYMAAILTVQEMMPSLAGVVNQALEQFFSNLNDAFLRVKVKDLFFDGIPVSCSGNHSALGLICGKLKAEAPPTMRPNEDGTGFYFSMFSHMNKTETGPYEMVRGRDDLSELGHIIAYKGKNTMKNFWASDQYCGQLNGSDASIYPPIDENNVPDKLYTFEPEVCRSMFASLMGKTMVYNMTAYHYEVTRDALASKSANPSHKCFCKNNWSGSHDGCLLMGVLNLMPCQGAPAIASLPHFYLASEELLDYFNGGISPDREKHNTYVYLEPVTGVVLKGLRRLQFNIELRNIPSVPQLANVRTGLFPMLW

>OfurSNMP2

MLGKHTKLFFGVSLVALIVSVILAAWGFPKIVSKQIQKNIQIDNSSVMFEKWRKIPMPLTFNVYVFNVTNVEDVNNGAKPRLQQIGPYAYKEYRERTVLGYGDNDTVSYTLKKTFIFDQEASGLLSEDDEVTVIHFSYMAAILTVNDMMPSITGVVNGALEQFFTNLTDPFLRVKVKDLFFDGVYVNCAGNHSALGLVCGKLKADAPQTMRPAGDGNGFYFSMFSHMNRTESGPYEMIRGRENIKELGHIISYKGKSFMKNWGNDMYCGQLNGSDASIFPPIDENNVPEKLYTFEPEVCRSLYASLVGKSSIFNMSAYYYEISSDALASKSANPGNKCYCKKNWSANHDGCLIMGILNLMPCQDAPAIASLPHFYLASEELLEYFDGGISPDKEKHNTYIYLEPVTGVVLKGLRRLQFNIELRNIPMVPQLAKVPTGLFPLLWIEEGAELPDSIIQELRQSHTLLGYVEAVRWALLAIAIVATAISAIAVARSGLIPVWPRNANSVSFILSPHPNSDVNKVH

>CmedSNMP2

MLGKHTKLFFAVSLFAVVISVILATWGFPKIVKKQIQKNVQLDESSQMFEKWRKLPMPLTFNVYVFNVTNVDDVNEGARPKLQELGPYVYKEYRERTILGYGDNNTVKYMLKKTFLFDQEASGALSQDDEVVVINFSYLAAILTVQDMMPSIVGVVNGALEQFFTNLTDAFLRVKVRDLFFDGVHVNCNGNHSALGLVCGKLKTDAPPTMRPAEDGSGYYFSMFSHMNRTETGPYEMVRGRDNIKELGHIVSYKGKASMGGRWGRDPYCGMLNGSDASIFPPIDEADVPDKLYTFEPEVCRSLYASLVGKSSIFNMSAYYYEISRLALASKSANPDNKCFCKKDWSSNHDGCLLMGVLNLMPCQDAPAIASLPHFYLASEELLEYFDGGISPDKEKHNTYMYLEPVTGVVLKGIRRLQFNIELRNIPMVPQLAKVSTGLFPLLWIEEGAELPESVLDELRHSHKLLGYVEAVRWVLLCVSLAALLASGVAVLRAGLLPVWPRNNSVSFILSPHPAENKVH

>CsupSNMP2

MLAKHMKVFFLASLAALVLAVILAAWGFPRIVSKQIQKNVQLENSSVMFEKWRKLPMPLTFKIYVFNVTNAEDINSGAKPMLTEIGPYVYKEYRERTILGYGENDTVRYTLKKTFIFDAEESGPLTENDEVVVINFSYMAAILAVQEMMPSLTTVVNQALEEFFTDLKDPFMRIKVRDLFFDGIHVNCVGNHSALGLVCGQLKSDTPPTMRPTEDGTGYYFSMFSHMNRTESGPYDMVRGTEDIRELGHVVAYKGERSMSQWGDPYCGQLNGSDSSIFPPIDGGNVPQRLYIFEPEICRSMFATLVGKTTVFNMSAFHYSISSDVLAARSANPNNKCYCRKNWSANHDGCLLMGVMNLAPCQGAPAIASLPHFYLASEELLQYFASGINPDKEKHDTYLYLEPVTGVVLKGLRRFQFNIELRNIPEVPQLAKVPTGLFPLLWIEEGATLPDSVVKELQSSHKLLSYVEAARWILLVVAVIATVVSAVTLARSGVLPVCPRNSNSVSFILNPHPTVIDVNKVH