```
Cryptococcus_neoform_0       ------------------------------------------------------------
Drosophila_melanogas_1       MA----------------------------------------------------------
EFR3A_Equus_caballus_2       ------------------------------------------------------------
Neurospora_crassa_3          ------------------------------------------------------------
Debaryomyces_hanseni_4       ------------------------------------------------------------
Saccharomyces_cerevi_5       ------------------------------------------------------------
Ustilago_maydis_6            ------------------------------------------------------------
Ascaris_suum_7               ------------------------------------------------------------
Harpegnathos_saltato_8       ------------------------------------------------------------
Monodelphis_domestic_9       ------------------------------------------------------------
Ailuropoda_melanoleu_10      ------------------------------------------------------------
Ashbya_gossypii_11           ------------------------------------------------------------
Nematostella_vectens_12      ------------------------------------------------------------
Acyrthosiphon_pisum_13       ------------------------------------------------------------
Culex_quinquefasciat_14      ------------------------------------------------------------
Aedes_aegypti_15             ------------------------------------------------------------
Camponotus_floridanu_16      ------------------------------------------------------------
Caenorhabditis_elega_17      ------------------------------------------------------------
EFR3B_Homo_sapiens_18        ------------------------------------------------------------
EFR3A_Homo_sapiens_19        ------------------------------------------------------------
EFR3B_Ailuropoda_mel_20      MEEHVRQYKNTAGERKMTPSAGTVINGGLSRKIQQMPGSTQHDDFKTSDHPLPWLGGGSY
Schizosaccharomyces__21      ------------------------------------------------------------
EFR3A_Xenopus_laevis_22      ------------------------------------------------------------
EFR3A_Taeniopygia_gu_23      ------------------------------------------------------------
EFR3B_Danio_rerio_24         ------------------------------------------------------------
Anopheles_darlingi_25        ------------------------------------------------------------
EFR3B_Mus_musculus_26        ------------------------------------------------------------
Yarrowia_lipolytica_27       ------------------------------------------------------------
EFR3A_Rattus_norvegi_28      ------------------------------------------------------------
Gallus_gallus_29             ------------------------------------------------------------
Kluyveromyces_lactis_30      ------------------------------------------------------------
Ornithorhynchus_anat_31      MDGEEGHAISQVTFWTRAGGARENAMPTLPRETLSQSDLTHRTSGVVSFGPVFLVGTVLK
EFR3A_Oryctolagus_cu_32      ------------------------------------------------------------
Nasonia_vitripennis_33       ------------------------------------------------------------
Candida_glabrata_34          ------------------------------------------------------------
Ixodes_scapularis_35         ------------------------------------------------------------
Daphnia_pulex_36             ------------------------------------------------------------
Tribolium_castaneum_37       MS----------------------------------------------------------
Anopheles_gambiae_38         ------------------------------------------------------------
EFR3B_Ciona_intestin_39      ------------------------------------------------------------
Tetraodon_nigrovirid_40      ------------------------------------------------------------
Solenopsis_invicta_41        ------------------------------------------------------------

Cryptococcus_neoform_0       ------------------------------------------------------------
Drosophila_melanogas_1       --------------------------------LIRCCFEPPELPEFFDSFVQKCTDPSC-
EFR3A_Equus_caballus_2       ------------------------------------------------------MPTR-
Neurospora_crassa_3          ------------------------------------------------------------
Debaryomyces_hanseni_4       ------------------------------------------------------------
Saccharomyces_cerevi_5       ------------------------------------------------------------
Ustilago_maydis_6            ------------------------------------------------------------
Ascaris_suum_7               ----------------------------------------------------------MDG-
Harpegnathos_saltato_8       ------------------------------------------------------------
Monodelphis_domestic_9       ----------------------------------------------------MSRGHGNMTRG-
Ailuropoda_melanoleu_10      ------------MKDYIQVPAAELDKPYELPSTRESTAFLWLSRSNDFILLVLVMFTR-
Ashbya_gossypii_11           ------------------------------------------------------------
Nematostella_vectens_12      ----------------------------------------------------------MATSH-
Acyrthosiphon_pisum_13       ------------------------------------------------------------M-
Culex_quinquefasciat_14      --------------------------------MSIIKCCFEPVEMPEFLDSFVKKCTEGC-
Aedes_aegypti_15             --------------------------------MSMIRCCFEPVEMPEFLDSFVKKCTEGC-
Camponotus_floridanu_16      ------------------------------------------------------MFG-
Caenorhabditis_elega_17      ------------------------------------------------------MNG-
EFR3B_Homo_sapiens_18        ------------------------------------------------------MYG-
EFR3A_Homo_sapiens_19        ----------------------------------------------------MPTR-
EFR3B_Ailuropoda_mel_20      QGDRSVQETASGKRAKEKETGLQSVGVAGTPMLLADKGSEEIGKEEQTRKKHQDVMPWGL
Schizosaccharomyces__21      ------------------------------------------------------------
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EFR3A_Xenopus_laevis_22      ------------------------------------------------------MPAG-
EFR3A_Taeniopygia_gu_23      ----------------------------MRQYVQVPTAEQEKAYDYNSAFEPRSCMCLG-
EFR3B_Danio_rerio_24         ------------------------------------------------------MTG-
Anopheles_darlingi_25        --------------------------------MSMIKCCFEPLEMPEFLDSFVKKCTEGC-
EFR3B_Mus_musculus_26        ------------------------------------------------------MYG-
Yarrowia_lipolytica_27       ------------------------------------------------------
EFR3A_Rattus_norvegi_28      ------------------------------------------------------MPTR-
Gallus_gallus_29             ------------------------------------------------------MGRKG-
Kluyveromyces_lactis_30      ------------------------------------------------------
Ornithorhynchus_anat_31      AAFNIITGGVAVANGRGPRPGRLVQLGKAGWACQGPPSPRPLHRPPAAPGFGLGQAPSRL
EFR3A_Oryctolagus_cu_32      -------------MKDYVQVPAAELEKPYEFTSRESTTFLYPMIMKNITSVLLVTDRCG-
Nasonia_vitripennis_33       --------------------------------MALIRCCFEAEAPDIFESVVGKCTDPGC-
Candida_glabrata_34          ------------------------------------------------------MQLG-
Ixodes_scapularis_35         ------------------------------------------------------IAG-
Daphnia_pulex_36             --------------------------------MSVWSTLSDSSFLEMLDTVLSKCDASYC-
Tribolium_castaneum_37       --------------------------------FIKCCFDGIEIAEVLDTFAQKCTDPGC-
Anopheles_gambiae_38         ------------------------------------------------------MLG-
EFR3B_Ciona_intestin_39      ------------------------------------------------------
Tetraodon_nigrovirid_40      ------------------------------------------------------
Solenopsis_invicta_41        ------------------------------------------------------G-

Cryptococcus_neoform_0       ------------------------------------------------------
Drosophila_melanogas_1       ------------------------------------------------------
EFR3A_Equus_caballus_2       ------------------------------------------------------
Neurospora_crassa_3          ------------------------------------------------------
Debaryomyces_hanseni_4       ------------------------------------------------------
Saccharomyces_cerevi_5       ------------------------------------------------------
Ustilago_maydis_6            ------------------------------------------------------
Ascaris_suum_7               ------------------------------------------------------
Harpegnathos_saltato_8       ------------------------------------------------------
Monodelphis_domestic_9       ------------------------------------------------------
Ailuropoda_melanoleu_10      ------------------------------------------------------
Ashbya_gossypii_11           ------------------------------------------------------
Nematostella_vectens_12      ------------------------------------------------------
Acyrthosiphon_pisum_13       ------------------------------------------------------
Culex_quinquefasciat_14      ------------------------------------------------------
Aedes_aegypti_15             ------------------------------------------------------
Camponotus_floridanu_16      ------------------------------------------------------
Caenorhabditis_elega_17      ------------------------------------------------------
EFR3B_Homo_sapiens_18        ------------------------------------------------------
EFR3A_Homo_sapiens_19        ------------------------------------------------------
EFR3B_Ailuropoda_mel_20      ECDWFSPGMGSSRFCAGRGMFQEEACELEKEALEQKG----------------------
Schizosaccharomyces__21      ------------------------------------------------------
EFR3A_Xenopus_laevis_22      ------------------------------------------------------
EFR3A_Taeniopygia_gu_23      ------------------------------------------------------
EFR3B_Danio_rerio_24         ------------------------------------------------------
Anopheles_darlingi_25        ------------------------------------------------------
EFR3B_Mus_musculus_26        ------------------------------------------------------
Yarrowia_lipolytica_27       ------------------------------------------------------
EFR3A_Rattus_norvegi_28      ------------------------------------------------------
Gallus_gallus_29             ------------------------------------------------------
Kluyveromyces_lactis_30      ------------------------------------------------------
Ornithorhynchus_anat_31      TGSLRRSSAGPWLTPGRALPCAQYFGRLAEAKQLPLNQVPQNSSDECLLCTEHWGNGWML
EFR3A_Oryctolagus_cu_32      ------------------------------------------------------
Nasonia_vitripennis_33       ------------------------------------------------------
Candida_glabrata_34          ------------------------------------------------------
Ixodes_scapularis_35         ------------------------------------------------------
Daphnia_pulex_36             ------------------------------------------------------
Tribolium_castaneum_37       ------------------------------------------------------
Anopheles_gambiae_38         ------------------------------------------------------
EFR3B_Ciona_intestin_39      ------------------------------------------------------
Tetraodon_nigrovirid_40      ------------------------------------------------------
Solenopsis_invicta_41        ------------------------------------------------------

Cryptococcus_neoform_0       ------------------------------------------------------
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Drosophila_melanogas_1       ------------------------------------------------------------
EFR3A_Equus_caballus_2       ------------------------------------------------------------
Neurospora_crassa_3          ------------------------------------------------------------
Debaryomyces_hanseni_4       ------------------------------------------------------------
Saccharomyces_cerevi_5       ------------------------------------------------------------
Ustilago_maydis_6            ------------------------------------------------------------
Ascaris_suum_7               ------------------------------------------------------------
Harpegnathos_saltato_8       ------------------------------------------------------------
Monodelphis_domestic_9       ------------------------------------------------------------
Ailuropoda_melanoleu_10      ------------------------------------------------------------
Ashbya_gossypii_11           ------------------------------------------------------------
Nematostella_vectens_12      ------------------------------------------------------------
Acyrthosiphon_pisum_13       ------------------------------------------------------------
Culex_quinquefasciat_14      ------------------------------------------------------------
Aedes_aegypti_15             ------------------------------------------------------------
Camponotus_floridanu_16      ------------------------------------------------------------
Caenorhabditis_elega_17      ------------------------------------------------------------
EFR3B_Homo_sapiens_18        ------------------------------------------------------------
EFR3A_Homo_sapiens_19        ------------------------------------------------------------
EFR3B_Ailuropoda_mel_20      ------------------------------------------------------------
Schizosaccharomyces__21      ------------------------------------------------------------
EFR3A_Xenopus_laevis_22      ------------------------------------------------------------
EFR3A_Taeniopygia_gu_23      ------------------------------------------------------------
EFR3B_Danio_rerio_24         ------------------------------------------------------------
Anopheles_darlingi_25        ------------------------------------------------------------
EFR3B_Mus_musculus_26        ------------------------------------------------------------
Yarrowia_lipolytica_27       ------------------------------------------------------------
EFR3A_Rattus_norvegi_28      ------------------------------------------------------------
Gallus_gallus_29             ------------------------------------------------------------
Kluyveromyces_lactis_30      ------------------------------------------------------------
Ornithorhynchus_anat_31      VAVRIASRTVDVIPVKVIWGDPNEELLSSTNAAYLLLLGRECSHVRSRKQLDKLPEHEVT
EFR3A_Oryctolagus_cu_32      ------------------------------------------------------------
Nasonia_vitripennis_33       ------------------------------------------------------------
Candida_glabrata_34          ------------------------------------------------------------
Ixodes_scapularis_35         ------------------------------------------------------------
Daphnia_pulex_36             ------------------------------------------------------------
Tribolium_castaneum_37       ------------------------------------------------------------
Anopheles_gambiae_38         ------------------------------------------------------------
EFR3B_Ciona_intestin_39      ------------------------------------------------------------
Tetraodon_nigrovirid_40      ------------------------------------------------------------
Solenopsis_invicta_41        ------------------------------------------------------------

Cryptococcus_neoform_0       ----------------------MGCIPCR-TLQP---EVAHLNACYPPPKALLTAGPEYR
Drosophila_melanogas_1       --------------------CCGCCSALRPRYKR---LV---DNIFP-------VNPEDG
EFR3A_Equus_caballus_2       --------------------VCCCCSALRPRYKR---LV---DNIFP-------EDPKDG
Neurospora_crassa_3          ----------------------MNALQQKCRPKHQVLV---LKCYPRTIK---GAVDVK
Debaryomyces_hanseni_4       ----------------------MPIFRPKHQK---LI---LQCYPPG-----KGVDKK
Saccharomyces_cerevi_5       ------------------MQLSMRMMFTPKHQK---LV---NQCYPTG-----RTTDKK
Ustilago_maydis_6            ----------------------MC--IPKSNHKK---LV---DDCYPPPKALITSAPEYR
Ascaris_suum_7               --------------------LMFCCAPCKPRYRR---LV---DAIYP-------RSLTEG
Harpegnathos_saltato_8       --------------------CCWCCSALRPRYKR---LV---DNIFP-------VNPQDG
Monodelphis_domestic_9       ------------------GRICCCCGALRPRFKR---LV---DNIFP-------EDPKDG
Ailuropoda_melanoleu_10      --------------------VCCCCSALRPRYKR---LV---DNIFP-------EDPKDG
Ashbya_gossypii_11           ----------------------MGLLFTPKHQK---LV---NQCYPTG-----RTPDKK
Nematostella_vectens_12      --------------------ICSCFGNFGPRYKR---LV---DNIFP-------ADARSG
Acyrthosiphon_pisum_13       --------------------CVGCLSRMRPRYKR---LV---DNIFP-------SVPQDG
Culex_quinquefasciat_14      --------------------CCGCCSALRPRYKR---LV---DNIFP-------VNPEDG
Aedes_aegypti_15             --------------------CCGCCSALRPRYKR---LV---DNIFP-------VNPEDG
Camponotus_floridanu_16      --------------------CCWCCSALRPRYKR---LV---DNIFP-------VNPQDG
Caenorhabditis_elega_17      --------------------LC-CCTPCKPRYRR---LV---DSIYP-------RAVTDG
EFR3B_Homo_sapiens_18        --------------------VCGCCGALRPRYKR---LV---DNIFP-------EDPEDG
EFR3A_Homo_sapiens_19        --------------------VCCCCSALRPRYKR---LV---DNIFP-------EDPKDG
EFR3B_Ailuropoda_mel_20      ------------------GRVCGCCGALRPRYKR---LV---DNIFP-------EDPEDG
Schizosaccharomyces__21      ----------------------MWLLFRSKHKK---LV---LRCFPSG-----KLGETE
EFR3A_Xenopus_laevis_22      --------------------ICGCCGALRPRYKR---LV---DNIFP-------EDPRDG
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EFR3A_Taeniopygia_gu_23      --------------------VCCCCAALRPRYKR---LV---DNIFP-------EDPKDG
EFR3B_Danio_rerio_24         --------------------VCGCCGALRPRYKR---LV---DNIFP-------EDPEDG
Anopheles_darlingi_25        --------------------CCGCCSALRPRYKR---LV---DNIFP-------ANPEDG
EFR3B_Mus_musculus_26        --------------------VCGCCGALRPRYKR---LV---DNIFP-------EDPEDG
Yarrowia_lipolytica_27       ----------------------MAPGIPKPRHQR---LV---LQCYPDG-----QAADKK
EFR3A_Rattus_norvegi_28      --------------------VCCCCSALRPRYKR---LV---DNIFP-------EDPKDG
Gallus_gallus_29             --------------------VCCCCAALRPRYKR---LV---DNIFP-------EDPKDG
Kluyveromyces_lactis_30      ----------------------MGFLFTPKHQK---LV---NQCYPPG-----RTPDKK
Ornithorhynchus_anat_31      REGLCHHGCRTAEKLIIPSRVCCCCAALRPRYKR---LV---DNIFP-------EDPKDG
EFR3A_Oryctolagus_cu_32      --------------------VCCCCSALRPRYKR---LV---DNIFP-------EDPKDG
Nasonia_vitripennis_33       --------------------CCWCCSALRPRYKR---LV---DNIFP-------VNPQDG
Candida_glabrata_34          -------------------------HIFTPKHQK---LV---NQCYPSG-----RAPDKK
Ixodes_scapularis_35         --------------------CCGCCAALRPRYKR---LV---DNIFP-------ANPEDG
Daphnia_pulex_36             --------------------CCGCCAALRPRYKR---LV---DNIFP-------VNPEDG
Tribolium_castaneum_37       --------------------CCGCCSAFRPRYKR---FV---DNIFP-------VYPQDG
Anopheles_gambiae_38         --------------------CCGCCSALRPRYKR---LV---DNIFP-------ANPEDG
EFR3B_Ciona_intestin_39      ------------------MSCCSCFSALRPQYKR---LV---DSIYP-------ANPEDG
Tetraodon_nigrovirid_40      --------------------VCGCCGPLRPRYKR---LV---DNIFP-------EDPKDG
Solenopsis_invicta_41        --------------------CCWCCAALRPRYKR---LV---DNIFP-------VNPQDG

Cryptococcus_neoform_0       PLAQDLSKLTYFATNKPSKLAKIGEELEKRVAQESARAS---SGNHKYRASLLISLAILR
Drosophila_melanogas_1       LVKSNMEKLTFYSLSSPDKLDRIGEYLYQKATKDINRKR---YKL------AEIAMEAMD
EFR3A_Equus_caballus_2       LVKADMEKLTFYAVSAPEKLDRIGSYLAERLSRDVVRHR---SGY------VLIAMEALD
Neurospora_crassa_3          PNSSELSYLLFYCQSRRAKIQKVGSFLEKKTASDVYHQR---IGN------VQVTLQILA
Debaryomyces_hanseni_4       PNPSELSYLLYYASTRRVKLEKVVTFLDRKTTSDAKHNR---AGN------LQVTLTIIS
Saccharomyces_cerevi_5       PKSSETSYLLYYVNSRRSKLEKVSTYLIKRSTSDLNHRR---IGN------IAVTLDLMN
Ustilago_maydis_6            PNSNELGRLTYYAQNKPAKLTKVGNLLESKAQADARAAKASGPAADKGKAALMITLAITK
Ascaris_suum_7               LIHTNMQKLTFYAISQPEKLDRIGEYIVWRMSRDLYRQR---YNQ------VKISVEAMD
Harpegnathos_saltato_8       LIKNNMEKLTFYSLSSPEKLDRIGEYLFQRASRDIYRRR---NGF------VVIAMEAMD
Monodelphis_domestic_9       LVKGDMEKLTFYAVSAPEKLDRIGTYLADKLTRDVVRHR---TGN------VLIAMEALD
Ailuropoda_melanoleu_10      LVKADMEKLTFYAVSAPEKLDRIGSYLAERLSRDVVRHR---SGY------VLIAMEALD
Ashbya_gossypii_11           PKSSETSYLLYYVNSRRTKLEKVSAYLVKRTAADLAHRR---IGN------VMVTLELAE
Nematostella_vectens_12      LVKANMDKLIFYALSSPEKLDRIGTYLARKLTRFVDRKR---YDF------VRISMEALD
Acyrthosiphon_pisum_13       LVKNNMEKLTFYALSSPEKLDRIGEYLFQKASRDISRKR---NEF------VMIAMEAMD
Culex_quinquefasciat_14      LVKANMEKLTFYSLRSPEKLDRIGEYLYQRASKDINRKR---YKF------VEIAMESMD
Aedes_aegypti_15             LVKSNMEKLTFYSLRSPEKLDRIGEYLYQRASKDINRKR---YKF------VEIAMEAMD
Camponotus_floridanu_16      LIKNNMEKLTFYSLSSPEKLDRIGEYLFQRASRDIYRRR---NGF------VVIAMEAMD
Caenorhabditis_elega_17      LLYSNMQKLTFYAISHPEKLERIGEYLVMRMVRDLSRQR---PVQ------VKIAVEAMD
EFR3B_Homo_sapiens_18        LVKTNMEKLTFYALSAPEKLDRIGAYLSERLIRDVGRHR---YGY------VCIAMEALD
EFR3A_Homo_sapiens_19        LVKTDMEKLTFYAVSAPEKLDRIGSYLAERLSRDVVRHR---SGY------VLIAMEALD
EFR3B_Ailuropoda_mel_20      LVKTNMEKLTFYALSAPEKLDRIGAYLSERLIRDVGRHR---YGY------VCIAMEALD
Schizosaccharomyces__21      PNGSPLAYLSYYAASNSSKLRKVAHFLGSRVRHSYYHKR---DNE------VIIGLKICK
EFR3A_Xenopus_laevis_22      LVKADMEKLTFYAVSAPEKLDRIGAYLAERLSRDVMRHR---YGN------VFIAMEALD
EFR3A_Taeniopygia_gu_23      LVKADMEKLTFYAVSAPEKLDRIGAYLAERLTRDVARHR---YGY------VLIAMEALD
EFR3B_Danio_rerio_24         LVKANMEKLTFYALSAPEKLDRIGAYLSERLSRDVARHR---YGY------VCIAMEALD
Anopheles_darlingi_25        LVKSNMEKLTFYSLRSPEKLDRIGEYLYQRASKDIYRKR---YKF------VEIAMEAMD
EFR3B_Mus_musculus_26        LVKTNMEKLTFYALSAPEKLDRIGAYLSERLIRDVGRHR---YGY------VCIAMEALD
Yarrowia_lipolytica_27       PNPSELSYLLFYVNHRRVKLEKVGPFLENKCYKDVSRGR---QGN------VMVALDIFA
EFR3A_Rattus_norvegi_28      LVKADMEKLTFYAVSAPEKLDRIGAYLAERLSRDVVRHR---SGY------VLIAMEALD
Gallus_gallus_29             LVKADMEKLTFYAVSAPEKLDRIGAYLAERLSRDVVRHR---YGY------VLIAMEALD
Kluyveromyces_lactis_30      PKGSETSYLLYYVNSRRPKLEKVSSYLVKRSTTDLNRRR---SGN------VSVTLELLA
Ornithorhynchus_anat_31      LVKADMEKLTFYAVSAPEKLDRIGSYLADRLSRDVVRHR---SGY------VLIAMEALD
EFR3A_Oryctolagus_cu_32      LVKADMEKLTFYAVSAPEKLDRIGAYLAERLSRDVVRHR---SGY------VLIAMEALD
Nasonia_vitripennis_33       LIKNNMEKLMFYSLSSPEKLDRIGEYLFQRASRDISRRR---NGF------VVIAMEAMD
Candida_glabrata_34          PKSSETSYLIYYVNSRSSKLEKVSNYLIKRTNTDLSRRR---VGN------VCVTLELMA
Ixodes_scapularis_35         LVRNNMEKLTFYALSSPEKLDRIGEYLAVRVSRDISRHR---VRY------VEISMEAMD
Daphnia_pulex_36             LVRSNMDKLTFYSMSSPEKLDRIGEYLAQRVSRDIYRHR---NPM------VIIAMEAMD
Tribolium_castaneum_37       LVKNNMEKLTFYALSSPEKLDRIGEYMYQRAARDIYRRR---YGF------VIIAMEAMD
Anopheles_gambiae_38         LVKSNMEKLTFYSLRSPEKLDRIGEYLYQRASKDIYRKR---YKF------VEIAMEAMD
EFR3B_Ciona_intestin_39      LVRSEMEKLTYYAASAPEKLDRIGDYLARRLTRDMARKR---EMP------VVIAMEALN
Tetraodon_nigrovirid_40      LSKSDMEKLTFYAVSAPEKLDRIGEYLAKRLSHDV----------------------ALD
Solenopsis_invicta_41        LIKNNMEKLTFYSLSSPEKLDRIGEYLFQRASRDIYRRR---NGF------VVIAMEAMD

Cryptococcus_neoform_0       ALLTECKR--DIALFARSTLRVIDSSLDVRVYQRGG-------IDLEV----VGRAAAAF
Drosophila_melanogas_1       LLLQACHAQTTLNLFVESFLRMVQKLLE----DSNP--------NLKI----MA--TNSF
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EFR3A_Equus_caballus_2        QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
Neurospora_crassa_3           ALIEKSPK--DLPLFASCVLSILEQVLK----SSDI--------TMVE----SS--IPTF
Debaryomyces_hanseni_4        SLIEECSE--NLNVFASFVCSILKSVLQ----SKDL--------SLCK----HA--IQTY
Saccharomyces_cerevi_5        KIVLHCKE--NLNVFVKDFLYIMNKVLSNNNFNNDV--------SVVE----LI--ELAF
Ustilago_maydis_6             NLLTECKN--SLNYFIKPSQSIIAAALD----AAQPTSARPRDLEISA----RA--ASAF
Ascaris_suum_7                QLLQSCHDLSSLNQFIESFLKMLQKLLE----TNNF--------QMEK----LA--TDSF
Harpegnathos_saltato_8        QLLVACHAQ-TLNLFIESFLKMVQKLLE----STDP--------QLQI----LA--TQSF
Monodelphis_domestic_9        QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------ELQM----LG--TNSF
Ailuropoda_melanoleu_10       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
Ashbya_gossypii_11            KIVTSCKE--NLNVFVKEFLDIMIKTLS----NNNF--------NLDVCVVEAA--EAVF
Nematostella_vectens_12       LLLMACHAP-SLNLFVESFLRMVQKLLE----SPEA--------ELQV----LG--TSSF
Acyrthosiphon_pisum_13        QLLVACHAQ-TLNLFVESYLRIVQKLLE----SSEP--------SLQI----LA--TQSF
Culex_quinquefasciat_14       LLLMACHAQ-ILNLFVESFLRMVQKLLE----DTNP--------TLQI----MA--TNSF
Aedes_aegypti_15              LLLMACHAQ-ILNLFVESFLRMVQKLME----DVNP--------TLQI----MA--TNSF
Camponotus_floridanu_16       QLLVACHAQ-TLNLFIESFLKMVQKLLE----STDP--------QLQI----LA--TQSF
Caenorhabditis_elega_17       QLLQACHSSPSLPQFSENHLRMVQRLLE----SNNA--------KMEQ----LA--TDSF
EFR3B_Homo_sapiens_18         QLLMACHCQ-SINLFVESFLKMVAKLLE----SEKP--------NLQI----LG--TNSF
EFR3A_Homo_sapiens_19         QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
EFR3B_Ailuropoda_mel_20       QLLMACHCQ-SINLFVESFLKMVAKLLE----SEKP--------NLQI----LG--TNSF
Schizosaccharomyces__21       TLVQKCRD--NINVMASEVVNML--LVA----SSSK--------NLEV----LSACVDCF
EFR3A_Xenopus_laevis_22       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQI----YG--TNSF
EFR3A_Taeniopygia_gu_23       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
EFR3B_Danio_rerio_24          QLLMACHCQ-SINLFVESFLKMVRKLLE----ADKP--------NLQI----LG--TNSF
Anopheles_darlingi_25         LLLMACHAQ-ILNLFVESFLRMVQKLLE----DTNP--------TLQI----MA--TNSF
EFR3B_Mus_musculus_26         QLLMACHCQ-SINLFVESFLKMVAKLLE----SEKP--------NLQI----LG--TNSF
Yarrowia_lipolytica_27        KLIEECHE--DLNLFAQNVVNTLLDVVN----SGDL--------LLCQ----HS--NKVF
EFR3A_Rattus_norvegi_28       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
Gallus_gallus_29              QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
Kluyveromyces_lactis_30       KIVENCNE--NMNIFIKDFIHIMTLVLNNNNFNNDP--------TIVG----LI--ERVL
Ornithorhynchus_anat_31       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
EFR3A_Oryctolagus_cu_32       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SGEP--------KLQV----LG--TNSF
Nasonia_vitripennis_33        QLLAACHAQ-TLNLFVESFLKMVQKLLE----STDP--------QLQI----LA--TQSF
Candida_glabrata_34           KIVDHCKE--NLNVFVKEFLTLMNMVLTNNSINNDV--------TVIE----LL--EITF
Ixodes_scapularis_35          QLLVACHAQ-SLNLFVESFLKMVQRLLE----CHNA--------DLQL----LA--TQSF
Daphnia_pulex_36              QLLLACHAQ-SLNLFVESFLKTVQKLLE----TTEP--------ALQI----LA--SQSF
Tribolium_castaneum_37        QLLLACHAP-ALNLFVESFLKMVQKLLE----STEP--------ELQI----LA--TQSF
Anopheles_gambiae_38          LLLMACHAQ-ILNLFVESFLRMVQKLLE----DTNP--------TLQI----MA--TNSF
EFR3B_Ciona_intestin_39       QLLLACHAQ-QINLFVESFLKMVATLLE----SDNP--------EFLT----LG--TNSF
Tetraodon_nigrovirid_40       QLLMACHSQ-SIKPFVESFLHMVAKLLE----SREP--------DLQV----LG--TNSF
Solenopsis_invicta_41         QLLVACHAQ-TLNLFVESFLKMVQKLLE----STDP--------QLQI----LA--TQSF

Cryptococcus_neoform_0        IAYT-TYTDGSAVGVDDT-----LTKTYFEILRKFGSMATVSL-LDSSEKPDTE------
Drosophila_melanogas_1        VKFA-NIN-----EDTPS-----YHRRYDFFISKFSSMCHS-------DAASMRD-----
EFR3A_Equus_caballus_2        VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----SDPEIRT-----
Neurospora_crassa_3           QAFC-ENHDPTSLAADQA-----YFRQYVSVVQQYASLASTR------PAPGKAQ-----
Debaryomyces_hanseni_4        GVLC-SKLDGGLFSGDKV-----FVDSFGSLSQNLINIGSENSKKRGPNNLEWQMI----
Saccharomyces_cerevi_5        SSICQNLD-DVLCNGDME-----FVQLYQNFVDLFFKIVTERI-----HNDDML------
Ustilago_maydis_6             YALASFLD-----PASSV-----VDEGFQRLLRSFALLAVERPLGADATLGEDAE-----
Ascaris_suum_7                VNFA-NIE-----ENTPA-----YHRQYDFFISKFAAMCHSNQ----GEDAK--------
Harpegnathos_saltato_8        VRFA-NIE-----EDTPS-----YHTRYDFFVSKYSAMCHSNN-----DDPAIRK-----
Monodelphis_domestic_9        VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSSMCHSCY-----DDPEVQR-----
Ailuropoda_melanoleu_10       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----SDPEIRT-----
Ashbya_gossypii_11            SSIC-QHLDGVLCNSDLE-----FTQMYRSFVDVYCQVVTERL-----HNDE--------
Nematostella_vectens_12       VKFA-NIE-----EDTPS-----YHRRYDFFVSKFSAMCWNDN-----ENQKHRQ-----
Acyrthosiphon_pisum_13        VRFS-NIE-----EDTPS-----YHRRYDFFVSKFSSMCHNNN-----PNLVTME-----
Culex_quinquefasciat_14       VRFA-NIE-----EDTPS-----YHRRYDFFISKFSSMCYGNN-----DDLELRD-----
Aedes_aegypti_15              VRFA-NIE-----EDTPS-----YHRRYDFFISKFSSMCYGNN-----DDLELRD-----
Camponotus_floridanu_16       VRFA-NIE-----EDTPS-----YHTRYDFFVSKYSAMCHSNN-----DDSIIRK-----
Caenorhabditis_elega_17       VTFS-NIE-----ESSPS-----YHRQYDFFIDKFSQMCHANPQAAYGDDFR--------
EFR3B_Homo_sapiens_18         VKFA-NIE-----EDTPS-----YHRSYDFFVSRFSEMCHSSH-----DDLEIKT-----
EFR3A_Homo_sapiens_19         VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----SDPEIRT-----
EFR3B_Ailuropoda_mel_20       VKFA-NIE-----EDTPS-----YHRSYDFFVSRFSEMCHSSH-----DDMEIKT-----
Schizosaccharomyces__21       ATFCDNSG-----KGSPATFGNEFHSAFNNLVNSFFELSKGID----CVDPQ--------
EFR3A_Xenopus_laevis_22       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----DDPEVRK-----
EFR3A_Taeniopygia_gu_23       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCD-----PDPEIQN-----
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EFR3B_Danio_rerio_24          VKFA-NIE-----EDTPS-----YHRSYDFFVSRFSEMCHSGY-----EDPDIRT-----
Anopheles_darlingi_25         VRFA-NIE-----EDTPS-----YHRRYDFFISKFSSMCYGNN-----DDVELRD-----
EFR3B_Mus_musculus_26         VKFA-NIE-----EDTPS-----YHRSYDFFVSRFSEMCHSSH-----DDLEIKT-----
Yarrowia_lipolytica_27        ALFC-QYHDGGLFLGDPE-----FVRSFKQLLEVYVNMAKVPN-----GPNSVQW-----
EFR3A_Rattus_norvegi_28       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----SDPEIRT-----
Gallus_gallus_29              VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCD-----HDPETQT-----
Kluyveromyces_lactis_30       EAIC-NHLDGSLVSGDSE-----FLELFKNFVTLYFKVANTKL-----NDTDLV------
Ornithorhynchus_anat_31       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----ADPETRT-----
EFR3A_Oryctolagus_cu_32       VKFA-NIE-----EDTPS-----YHRRYDFFVSRFSAMCHSCH-----SDPEIRT-----
Nasonia_vitripennis_33        VRFA-NIE-----EDTPS-----YHTRYDFFVSKYSSMCHSNN-----DDSTVRK-----
Candida_glabrata_34           GTICRNLD-GAYYGGDTE-----FIKMFKSFVDLLFEVVSKRL---------NND-----
Ixodes_scapularis_35          VKFA-NIE-----EDTPS-----YHRRYDFFVSKFSSLCHDNN-----PDAELRK-----
Daphnia_pulex_36              VKFA-NIE-----EDTPS-----YHRRYDFFVSKFASLCHSNH-----PEVDVLN-----
Tribolium_castaneum_37        VKFA-NIE-----EDTPS-----YHRRYDFFVSKFSAMCHSSE-----GD----------
Anopheles_gambiae_38          VRFA-NIE-----EDTPS-----YHRRYDFFISKFSSMCYGNN-----DDMELRD-----
EFR3B_Ciona_intestin_39       EKFS-EIK-----EDTAS-----YHRRYDFFVSKFSSMCHSQQ-----KNSAIRQ-----
Tetraodon_nigrovirid_40       VKFA-NIE-----EDTPS-----YHRRYDFFVSQFSAMCHSTH-----EDPETMTRSGLR
Solenopsis_invicta_41         VRFA-NIE-----EDTPS-----YHTRYDFFVSKYSAMCHSSN-----DDPTTRK-----

Cryptococcus_neoform_0        ----------------QQNRTRLI----ALAGLNGAA----TSDAIFASTRDFPRQIDLI
Drosophila_melanogas_1        ----------------SLRLAGIK----GLQGVIRKT----VSDDLVEN-IWEAEHMEKI
EFR3A_Equus_caballus_2        ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
Neurospora_crassa_3           ----------------HSKPIALRWRNAGLEAIRSVA----SSDALSSM---VARQYDIL
Debaryomyces_hanseni_4        ----------------------------SLMTCRY------ISNCLGYNSKFSKKFIEIC
Saccharomyces_cerevi_5        ----------------------------LKCCIDIS----NTNSVSSN-PQLNHFVSKS
Ustilago_maydis_6             ----------------QRNRTRLI----GLGALAGAV----ASDAIYSS-NFK-QLLSLL
Ascaris_suum_7                ----------------AIRYAGLR----GLRGVLWKS----ATDPLQAS-IWEKQHMDKI
Harpegnathos_saltato_8        ----------------QIRLAGIQ----GLQGVVRKT----LSDDLVEN-IWEPVHMDKI
Monodelphis_domestic_9        ----------------EIRVAGIR----GIQGVVRKT----VNDELQAT-IWEPQHMDKI
Ailuropoda_melanoleu_10       ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
Ashbya_gossypii_11            -------------------L--------LMKGCLDIS----KTANLAGN-PGVSSLISRG
Nematostella_vectens_12       ----------------QIRTSGLR----GLQGVVRKT----VSDDLQVN-LWDNTHISKI
Acyrthosiphon_pisum_13        ----------------MIRMAGIK----GIQGVIRKT----VSDDLVEN-IWEPVHMDKI
Culex_quinquefasciat_14       ----------------SIRMAGIK----GLQGVIRKT----VSDDLVEN-IWEKQHMEKI
Aedes_aegypti_15              ----------------SIRMAGIK----GLQGVIRKT----VSDDLVEN-IWEKQHMEKI
Camponotus_floridanu_16       ----------------QIRLAGIQ----GLQGVVRKT----LSDDLVEN-IWEPVHMDKI
Caenorhabditis_elega_17       ----------------LARCAGLR----GLRGVVWKS----VTDDLHPN-IWEQQHMDKI
EFR3B_Homo_sapiens_18         ----------------KIRMSGIK----GLQGVVRKT----VNDELQAN-IWDPQHMDKI
EFR3A_Homo_sapiens_19         ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
EFR3B_Ailuropoda_mel_20       ----------------KIRMSGIK----GLQGVVRKT----VNDELQAN-IWDPQHMDKI
Schizosaccharomyces__21       ----------------QSKML-------GLKAFHALTACKFAGTEGGMR--YQPHFAIHC
EFR3A_Xenopus_laevis_22       ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
EFR3A_Taeniopygia_gu_23       ----------------EIRIAGIR----GIQGVVRKA----VNDELRAT-IWEPQHMDKI
EFR3B_Danio_rerio_24          ----------------KIRMAGIK----GLQGVVRKT----VNDELQAN-IWDPQHMDKI
Anopheles_darlingi_25         ----------------SIRMAGIK----GLQGVIRKT----VSDDLVAN-IWEKQHMEKI
EFR3B_Mus_musculus_26         ----------------KIRMSGIK----GLQGVVRKT----VNDELQAN-IWDPQHMDKI
Yarrowia_lipolytica_27        ----------------KIV---------GLEAAKSIAGSAAIATQTGST------SISPI
EFR3A_Rattus_norvegi_28       ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
Gallus_gallus_29              ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
Kluyveromyces_lactis_30       ----------------------------LKGCLDFS----KISNLGSIHQWSAT-AKNC
Ornithorhynchus_anat_31       ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
EFR3A_Oryctolagus_cu_32       ----------------EIRIAGIR----GIQGVVRKT----VNDELRAT-IWEPQHMDKI
Nasonia_vitripennis_33        ----------------QIRLAGIQ----GLQGVVRKT----VSDDLVEN-IWNMVHMDKI
Candida_glabrata_34           ----------------DLM----------LKVCIDISTIIGIASDPQLN-YLVPKCVETA
Ixodes_scapularis_35          ----------------QLRLAGLR----GLQGVVRKT----VSDDLQVN-IWDETHMEKI
Daphnia_pulex_36              ----------------SLRLAGLR----GIQGVVRKT----VSDDLVEN-IWEPVHMDKI
Tribolium_castaneum_37        ----------------QIRIAGIK----GLQAVVRKT----VSDDLVEN-IWEPVHMDKI
Anopheles_gambiae_38          ----------------SIRMAGIK----GLQGVIRKT----VSDDLVAN-IWEKQHMEKI
EFR3B_Ciona_intestin_39       ----------------KVQLHGVR----GLRGVIRKT----VTDELQVN-IWEKQHMDKI
Tetraodon_nigrovirid_40       LGLGLGSLLTSLAANVRIRVAGIR----GLQGVVRKT----VNDELQAI-IWEPQHMDKL
Solenopsis_invicta_41         ----------------QIRLAGIQ----GLQGVVRKT----LSDDLVEN-IWEPVHMDKI

Cryptococcus_neoform_0        IPPLLVNTFEGQISE---------------LKLESAKIGMDASPSP--FFSEFAAKGPVA
Drosophila_melanogas_1        VPSLLFNMQF-----CVNV-----------MFVKKN----LLASGD-------LTPVEDA
EFR3A_Equus_caballus_2        VPSLLFNMQK--------I-----------EEADSR----IGPPSS-------PSAA--D
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Neurospora_crassa_3          VPMILENLWTENEDFLDVLLQRVQGDNNVEDAPLLRRRTSNATAQP-------SETTGGE
Debaryomyces_hanseni_4       IPILTETVHA--NNKQSNLLTILKSNVNIEDENHHLGRIASTKTNQ-------TSRKAQQ
Saccharomyces_cerevi_5       VAYTISKFQERNPKFKTLSLEAALE-----SNLGKR----LSRTQT-------RTIGLDK
Ustilago_maydis_6            TPALVENAKANRVTLDWLRS----------ESNKAT----EGEPTYAEFNIAKKPLAIRR
Ascaris_suum_7               VPSILFNLQD-----DDSL-----------ESEDTAETVMNAPFLD-------QPYAVDG
Harpegnathos_saltato_8       VPSLLYNMQN--------S-----------RYADKE----QATPDS-------PT----E
Monodelphis_domestic_9       VPSLLFNMQK--------L-----------EDVDSR----IGPPSS-------PDG---D
Ailuropoda_melanoleu_10      VPSLLFNMQK--------T-----------EEVDSR----AGPPPS-------PSAS--D
Ashbya_gossypii_11           VELTLAKFQEVQPRFQGES-----------LQVDLHSSEKRLSRSQ-------THLTAAE
Nematostella_vectens_12      VPSLLFILEE-----------------------------------SE-------KSFNEFQ
Acyrthosiphon_pisum_13       VPSLLFNMHT-----------------------------MNGISE-------EV----N
Culex_quinquefasciat_14      VPSLLFNMQS----------------------VSGS----KSVDQE-------------A
Aedes_aegypti_15             VPSLLYNMQS--------S----------------------SGSKIV-------DQE---A
Camponotus_floridanu_16      VPSLLYVDKE-----------------------------HAMPDS-------PT----E
Caenorhabditis_elega_17      VPSILFNLQE--------------------PDDSGKGFSSSQIPKFDNTFADSTQSHRVD
EFR3B_Homo_sapiens_18        VPSLLFNLQH--------V-----------EEAESR----SPSPLQ-------APE---K
EFR3A_Homo_sapiens_19        VPSLLFNMQK--------I-----------EEVDSR----IGPPSS-------PSAT--D
EFR3B_Ailuropoda_mel_20      VPSLLFNLQH--------I-----------EEAESR----SPSPLQ-------APE---K
Schizosaccharomyces__21      V--LINSWSESDQEKKSFI-----------DLVRSTAKSYKPLPPS-------STGVSLP
EFR3A_Xenopus_laevis_22      VPSLLFNMQK--------I-----------EDTDSR----TGPPAS-------PTTG--D
EFR3A_Taeniopygia_gu_23      VPSLLFNMQK--------I-----------EDIDSR----TGPPSS-------PTVG--V
EFR3B_Danio_rerio_24         VPSLLFNLQS--------G-----------EGTESR----SPSPLQ-------ASE---K
Anopheles_darlingi_25        VPSLLFNMQS-----------------------------GPSKS-------TDTE--T
EFR3B_Mus_musculus_26        VPSLLFNLQH--------V-----------EEAESR----SPSPLQ-------APE---K
Yarrowia_lipolytica_27       VHLLLSSLQE----SQSDL-----------EQLDHSLDLGGGLPDN-------IGGSKRN
EFR3A_Rattus_norvegi_28      VPSLLFNMQK--------I-----------EEVDSR----LGPPSS-------PSAA--D
Gallus_gallus_29             VPSLLFNMQK--------I-----------EDVDSR----TGPPSS-------PTGG--E
Kluyveromyces_lactis_30      VSIALTKFQERHPIYSE-------------ATIDSSFSEPGSPALKKKLTRTQTKVMGLD
Ornithorhynchus_anat_31      VPSLLFNMQK--------I-----------EDNDSR----IGPPSS-------PPGG--D
EFR3A_Oryctolagus_cu_32      VPSLLFNMQK--------I-----------EEVDSR----LGPPSS-------PSAA--D
Nasonia_vitripennis_33       VPSLLYNMQN--------A-----------RYSNKE----NATPES-------PT----E
Candida_glabrata_34          IDQLQARYPQFKENSLLEQ-----------PSLTKR----LSKTQT-------RAQEVLE
Ixodes_scapularis_35         VPSLLFNMQD--------A----------------------RWTPDS-------------P
Daphnia_pulex_36             IPSLLYNMQH--------A----------------------SGHPEE------QTDSENGA
Tribolium_castaneum_37       VPSLLFNMQN--------A-----------RFLNNE------AKEV-------IP----E
Anopheles_gambiae_38         VPSLLFNMQS-----------------------------GPSKST-------DTE---A
EFR3B_Ciona_intestin_39      IPSLLYSMQ----------------------DDPDSS----LTEEAS-------PGNN--K
Tetraodon_nigrovirid_40      IPSMLFNMQD--------G-----------EDMD-R----AGHPST-------PSVAGQD
Solenopsis_invicta_41        VPSLLYNMQN--------S-----------RYADKE----DATPDS-------PT----E

Cryptococcus_neoform_0       Q-----------RRAPSL-HAHIPGEKGPTSADVVSAALRSLH---SLLQQCNVTQASQI
Drosophila_melanogas_1       T-----------NVTPPA------------------LAEEVLR---ELVGRASFGHIRSV
EFR3A_Equus_caballus_2       K-----------EENPAV------------------LAENCFR---ELLGRATFGNMNNA
Neurospora_crassa_3          P-----------GPNPIAFLGTAVDVDKLAEEDIGVLAMQCLR---QVFVAPSRSQTHNP
Debaryomyces_hanseni_4       D-----------LDNDAV--------------KDSDLNEEALRGLKALFSTSLTSQISEA
Saccharomyces_cerevi_5       A-----------AEDNHD------------------LSVKALQ---SYFNTTETDKLNLS
Ustilago_maydis_6            T-----------RSISAH----VAGEKGPSSEDVISAAIGTLR---GLLRHADAAQVQSI
Ascaris_suum_7               V-----------ADSPKT------------------LSDQFLR---ELMAKAPFGLI-SV
Harpegnathos_saltato_8       E-----------RSDPPQ------------------FAETCMR---ELIGRASFGHIRCV
Monodelphis_domestic_9       K-----------EENPAV------------------LAENCFR---ELLGRATYGNMSNA
Ailuropoda_melanoleu_10      K-----------EENPAV------------------LAENCFR---ELLGRATFGNMNNA
Ashbya_gossypii_11           E-----------SRVLGG------------------YPEQALQ---SYFSTTETDKLSIA
Nematostella_vectens_12      S-----------DDDPAH------------------IAEACLR---ELMSRASFGNIKSV
Acyrthosiphon_pisum_13       D-----------KTDSFS------------------LAESCLR---ELIGRASFGHVKSV
Culex_quinquefasciat_14      T-----------PSTPPV------------------LAEAVLR---ELVSRASFGHIRAV
Aedes_aegypti_15             T-----------PSTPPV------------------LAEAVLR---ELVSRASFGHIRAV
Camponotus_floridanu_16      E-----------RSDPPQ------------------FAETCMR---ELIGRASFGHIRCV
Caenorhabditis_elega_17      D-----------EATPKV------------------LSDRCLR---ELMGKASFGSLRAV
EFR3B_Homo_sapiens_18        E-----------KESPAE------------------LAERCLR---ELLGRAAFGNIKNA
EFR3A_Homo_sapiens_19        K-----------EENPAV------------------LAENCFR---ELLGRATFGNMNNA
EFR3B_Ailuropoda_mel_20      E-----------KENPAE------------------LAERCLR---ELLGRAAFGNIKNA
Schizosaccharomyces__21      E-----------HDEAGD-------------NIDVAIKKLCIRILFNIYTQTDPLFMAES
EFR3A_Xenopus_laevis_22      K-----------EENPGI------------------LAENCFR---ELLGRATYGNMNNA
EFR3A_Taeniopygia_gu_23      K-----------EENPSV------------------LAENCFR---ELLGRATYGNMNNA
EFR3B_Danio_rerio_24         E-----------KESPAE------------------LTERCFR---ELLGRAAYGNIKNA
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Anopheles_darlingi_25        T----------PSTPPL-----------------LAEAVLR---ELVSRASFGHIKSV
EFR3B_Mus_musculus_26        E----------KENPAE-----------------LAERCLR---ELLGRAAFGNIKNA
Yarrowia_lipolytica_27       SMHQDAIDNFIHEESPEK--------------QVRYLSFHALR---TFFDTTSVVQIQSA
EFR3A_Rattus_norvegi_28      K----------EENPAV-----------------LAESCFR---ELLGRATFGNMNNA
Gallus_gallus_29             K----------EENPAL-----------------LAENCFR---ELLGRATYGNMNNA
Kluyveromyces_lactis_30      D----------VSNTGD-----------------YSILALN---TFFNTTETDKLTIG
Ornithorhynchus_anat_31      K----------EENPAV-----------------LAENCFR---ELLGRATYGNMNNA
EFR3A_Oryctolagus_cu_32      K----------EENPAV-----------------LAESCFR---ELLGRATFGNMNNA
Nasonia_vitripennis_33       E----------RSDPPQ-----------------FAETCMR---ELVGRASFGHIRCV
Candida_glabrata_34          I----------PTADND-----------------LCVATLH---NYFNTTETDKLNLS
Ixodes_scapularis_35         Q----------VESPLS-----------------LAENCFR---EVMGRATYGHIASV
Daphnia_pulex_36             R----------NIDPSS-----------------LAENCLR---ELVGRASFGNIRSV
Tribolium_castaneum_37       D----------QTDPPM-----------------LAETCLR---ELVGRASFGHIRAV
Anopheles_gambiae_38         T----------PSTPPL-----------------LAEAVLR---ELVSRASFGHIKSV
EFR3B_Ciona_intestin_39      N----------NVNHSA-----------------LAEEALR---ELFSRATFANVSAA
Tetraodon_nigrovirid_40      G----------EENPAT-----------------LAENCFR---ELLGRAAYGNMNNA
Solenopsis_invicta_41        E----------RSDPPQ-----------------FAETCMR---ELIGRASFGHIRCV

Cryptococcus_neoform_0       IDRLVMFLDKHG----------------WQY------AERDCFVAEQVTAWIP--LQYRF
Drosophila_melanogas_1       LKPLLTHLDRHE----------------LWVP------NTFAIHTFRIVMISIQ--PQYSY
EFR3A_Equus_caballus_2       VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
Neurospora_crassa_3          TIALLRFIEERVDQNEQVVKRD----AHGKD------NGWAIKVFLMAARWAP--VADRF
Debaryomyces_hanseni_4       TRAIVKN-NYAT----------------TIDP-------IWGCTFLEMCTTWIP--VQLRF
Saccharomyces_cerevi_5       IRTLLRCLQSTP----------------------------NKELLEFVCNGIP--VQLRY
Ustilago_maydis_6            VQNVIAWLDNKSALSIPVPKDGRQLVSHWDD------PEWCCWLAESLCSWTS--LQYRF
Ascaris_suum_7               LEPVLKHCDLHK----------------KWEPP-----ATFAVTTFRAIMYSI----KDPY
Harpegnathos_saltato_8       IRPVLRHLDNHQ----------------LWVP------NYFAIHTFRIIMFSIQ--SQYSY
Monodelphis_domestic_9       VRPVFEHLDHHH----------------LWDP------NEFAVHCFKVIMYSIQ--AQYSH
Ailuropoda_melanoleu_10      VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
Ashbya_gossypii_11           IRALIKRL-------------------LEVP---------NKELLQYIANTIP--VQLRY
Nematostella_vectens_12      INPVLNHLNSSE----------------LWVP------NEFALKVFKIIMFSVQ--NQYNY
Acyrthosiphon_pisum_13       IRPVLKHLDAHH----------------MWVP------NVFATQCFRILMFSIQ--SQYSY
Culex_quinquefasciat_14      LKPLLMHMDNHK----------------LWVP------NRFAIDTFRIVMISIQ--PQYSY
Aedes_aegypti_15             LKPLLMHLDNHK----------------LWVP------NRFAIDTFRIVMISIQ--PQYSY
Camponotus_floridanu_16      IRPVLRHLDNHQ----------------LWVP------NYFAIHTFRIIMFSIQ--SQYSY
Caenorhabditis_elega_17      IEPVLKHMDLHK----------------RWTPP-----PSFAIHVFRAIIYSIQ--SQNSY
EFR3B_Homo_sapiens_18        IKPVLIHLDNHS----------------LWEP------KVFAIRCFKIIMYSIQ--PQHSH
EFR3A_Homo_sapiens_19        VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
EFR3B_Ailuropoda_mel_20      IKPVLIHLDNHS----------------LWEP------KVFAIRCFKIIMYSIQ--PQHSH
Schizosaccharomyces__21      TKSLIHFFAAKS----------------DTPVN----LEYISVVLNQILDWTP--VELRH
EFR3A_Xenopus_laevis_22      VKPVFAHLDHHK----------------LWES------NEFAVSCFKIIMYSIQ--AQYSH
EFR3A_Taeniopygia_gu_23      VRPVFAHLDHHR----------------LWDP------NEFAVSCFKIIMYSIQ--AQYSH
EFR3B_Danio_rerio_24         VTPVLMHLDNHS----------------LWEG------KTFAVRCFKIIMYSIQ--SQHSH
Anopheles_darlingi_25        LKPLLTHLDQHK----------------LWVP------NRFAIDTFRIVMISIQ--PQYSY
EFR3B_Mus_musculus_26        IKPVLIHLDNHS----------------LWEP------KVFATRCFKIIMYSIQ--PQHSH
Yarrowia_lipolytica_27       TRAIVTYIINSN----------------VP------EHWATSLVVIVAKWAP--VQYRF
EFR3A_Rattus_norvegi_28      VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
Gallus_gallus_29             VRPVFAHLDHHK----------------LWDP------NEFAVSCFKIIMYSIQ--AQYSH
Kluyveromyces_lactis_30      LHALIEHL-------------------LETP---------NKELLQFICNGIP--VQLRY
Ornithorhynchus_anat_31      VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
EFR3A_Oryctolagus_cu_32      VRPVFAHLDHHK----------------LWDP------NEFAVHCFKIIMYSIQ--AQYSH
Nasonia_vitripennis_33       IKPVLKHLDNHQ----------------LWVP------NYFAIHTFRIIMFSIQ--SQYSY
Candida_glabrata_34          IRSLIKKLQSTP----------------------------NKELLEFISNDIP--VQLRY
Ixodes_scapularis_35         IKPVLKHLDNHR----------------LWVP------NTFAIYTFKIIIISVS--NVESY
Daphnia_pulex_36             IKPVFKHLDLHE----------------LWVP------NDFAIYTFRVIMYSIQ--VQYSY
Tribolium_castaneum_37       LKPVLKHFDLHK----------------LWAPEDNPNNNEFAIHTFRIIMFSIQ--AQYSY
Anopheles_gambiae_38         LKPLLTHLDHHK----------------LWVP------NKFAIDTFRIVMISIQ--PQYSY
EFR3B_Ciona_intestin_39      LVPALSHMDNHS----------------LWGPK-----NGFAIKCFKVIMYSIQ--AQYSH
Tetraodon_nigrovirid_40      VRPVLVHLDNHH----------------LWEP------NEFAVSCFRIIMYSIQ--AQHSH
Solenopsis_invicta_41        IRPVLRHLDNHQ----------------LWVP------NYFAIHTFRIIMFSIQVHSQYSY

Cryptococcus_neoform_0       IVPTRLVEVLMDLQDRTPTPKHTSAL--------AM----VTTILNSTTSLV--------
Drosophila_melanogas_1       TVVETLMQ-HLDNNFKSSPKTRT-SLAV------VL----SKIIAIAAGESV--------
EFR3A_Equus_caballus_2       HVIQEILG-HLDARKKDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Neurospora_crassa_3          TILLTAIE-VLTQRPLTDDNLRHHNTQA------AM----ISALLRSDVNLI--------
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Debaryomyces_hanseni_4        ITLSTVLS-SLTSLSNKSTKKTSNYPIQ------LLYANYCLGLVSSDVNMI--------
Saccharomyces_cerevi_5        IVILLLVRQLSDKDKNVNPIVSL-----------KL----MSSLLVSDVSIV--------
Ustilago_maydis_6             VVLDTLVD-HLAENGEGKATNKHLSLIQ-------M----SRTILTGQLSLI--------
Ascaris_suum_7                FVIQALIN-HLENMSSSNASVRI-GIAT------VL----SSIVSIA-GTSI--------
Harpegnathos_saltato_8        TVVEALMT-HLDDHSKSSPKIRT-SIAD------TL----SKIISIAAGESV--------
Monodelphis_domestic_9        HVIQETLA-HLDVRKKDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Ailuropoda_melanoleu_10       HVIQEILG-HLDARKKDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Ashbya_gossypii_11            ILVLVFTH-ALNQEDEHA------VVLL------KL----MTTLLVSDVSII--------
Nematostella_vectens_12       VVIQMLLS-YLDASSKESAKKKA-GVVS------VL----AECVGLATGSSI--------
Acyrthosiphon_pisum_13        AVVETLMT-HLDENGNASPKIRT-SIAD------VL----SKIIAIAANESV--------
Culex_quinquefasciat_14       TVVETLMS-HLDQNLASSPKTRT-SLAV------VL----SKIIAIAAGESV--------
Aedes_aegypti_15              TVVETLMS-HLDQNLASSPKTRT-SLAV------VL----SKIIAIAAGESV--------
Camponotus_floridanu_16       TVVEALMT-HLDDHSKSSPKIRT-SIAD------TL----SKIISIAAGESV--------
Caenorhabditis_elega_17       FVIQELIN-HLDSMCSADASTRI-GIAT------VL----SSIVSIA-GTSI--------
EFR3B_Homo_sapiens_18         LVIQQLLG-HLDANSRSAATVRA-GIVE------VL----SEAAVIAATGSV--------
EFR3A_Homo_sapiens_19         HVIQEILG-HLDARKKDAPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
EFR3B_Ailuropoda_mel_20       LVIQQLLS-HLDANSRSAATVRA-GIVE------VL----SEAAVIAATGSV--------
Schizosaccharomyces__21       SIFFCCLR-CLSSSRIVNSETNV--MVP------YM----IYSILNSKNSIS--------
EFR3A_Xenopus_laevis_22       HVIQQILV-HLDLHKKDSPRIRA-GIVQ------VL----LEAVAIAAKGSI--------
EFR3A_Taeniopygia_gu_23       HVIQEILG-HLDVRKRDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
EFR3B_Danio_rerio_24          LVIQQLLG-HLDANSKSSATVRA-GIVE------VL----LEVAAIAASGSV--------
Anopheles_darlingi_25         TVVETLMS-HLDQNLTSSPKTRT-SLAV------VL----SKIIAIAAGESV--------
EFR3B_Mus_musculus_26         LVIQQLLS-HLDANSRSAATVRA-GIVE------VL----SEAAIIAATGSV--------
Yarrowia_lipolytica_27        VILVSLVE-MLVAMSPNNVKSEL--VVA------AL----IHALLSSTVNMV--------
EFR3A_Rattus_norvegi_28       HVIQEILG-HLDARKKDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Gallus_gallus_29              HVIQEILG-HLDACKKDPPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Kluyveromyces_lactis_30       IVILLFVR-PLGTSSEKNMLLIL-----------KL----ISSLLTSAVSII--------
Ornithorhynchus_anat_31       HVIQETLG-HLDARKKDSPRVRA-GIVQ------VL----LEAVAIAAKGSI--------
EFR3A_Oryctolagus_cu_32       HVIQEILG-HLDACKKDSPRVRA-GIIQ------VL----LEAVAIAAKGSI--------
Nasonia_vitripennis_33        TVVEALMT-HLDEHSQSSPKIRT-SIAD------TL----SKIISIAAGESV--------
Candida_glabrata_34           IVVLLLTR-QVSNYERNQVSGSQ-GNPDGALNSLKL----ISCLLVSKISIV--------
Ixodes_scapularis_35          EITSALTQEDGGERLSRGPKVRM-GIVN------VL----FHLVNIAAGESV--------
Daphnia_pulex_36              AVVENLMM-HLDTSSRSRAKVRT-SMAN------VL----AKIISIAAGESV--------
Tribolium_castaneum_37        TVVETLVA-HLDDNAKSSPIIRT-SISG------VL----SKIIAIAAGESV--------
Anopheles_gambiae_38          TVVETLMS-HLDQNLTSSPKTRT-SLAV------VL----SKIIAIAAGESV--------
EFR3B_Ciona_intestin_39       VVVKMLLD-HLDENTKEDDDIKA-SMLQ------VL----CIIVPIPSSAAI--------
Tetraodon_nigrovirid_40       HVIQQVLN-HLDTHSRDPPRVRA-GIVQ------VL----LETVAIAAKGSVAGVLGNHS
Solenopsis_invicta_41         TVVEALMT-HLDDHSKSSPKIRT-SIAD------TL----SKIISIAAGESV--------

Cryptococcus_neoform_0        ---------------------------------------GLGVTDLLQHLVSLIIRRIHF
Drosophila_melanogas_1        ---------------------------------------GPSALDIINNLLTHLRTSVS-
EFR3A_Equus_caballus_2        ---------------------------------------GPTVLEVFNTLLKHLRLSVEF
Neurospora_crassa_3           ---------------------------------------GLSVMDVLLNLLRHMQRLVQM
Debaryomyces_hanseni_4        ---------------------------------------GLSISDVIQQI---LFLQANL
Saccharomyces_cerevi_5        ---------------------------------------GLSVLDIMRKLLNFQLKNAT-
Ustilago_maydis_6             ---------------------------------------GLSTSDTLSNLCALAVRRVYK
Ascaris_suum_7                ---------------------------------------GPSLLGIFNSLLKHLRQSVEF
Harpegnathos_saltato_8        ---------------------------------------GPSVLEIINSLLSHLRVSVT-
Monodelphis_domestic_9        ---------------------------------------GPTVLEVFNTLLKHLRLSVEF
Ailuropoda_melanoleu_10       ---------------------------------------GPTVLEVFNTLLKHLRLSVVF
Ashbya_gossypii_11            ---------------------------------------GLSVLDLLRKIINFQLASAT-
Nematostella_vectens_12       ---------------------------------------GPAVLEVFNTLLRHLRYSVDA
Acyrthosiphon_pisum_13        ---------------------------------------GPTVLEIINSLLTNLRTSVTR
Culex_quinquefasciat_14       ---------------------------------------GPSALDIINNLLTHLKTSVS-
Aedes_aegypti_15              ---------------------------------------GPSALDIINNLLTHLKTSVS-
Camponotus_floridanu_16       ---------------------------------------GPSVLEIINSLLSHLRVSVT-
Caenorhabditis_elega_17       ---------------------------------------GPLLLSIFNSLLKHLRTSVDF
EFR3B_Homo_sapiens_18         ---------------------------------------GPTVLEMFNTLLRQLRLSIDY
EFR3A_Homo_sapiens_19         ---------------------------------------GPTVLEVFNTLLKHLRLSVEF
EFR3B_Ailuropoda_mel_20       ---------------------------------------GPTVLEMFNTLLRQLRLSIDY
Schizosaccharomyces__21       ---------------------------------------GLSVIDVLRDLGSHLINAVNS
EFR3A_Xenopus_laevis_22       ---------------------------------------GPTVLEVFNTLLKHLTLSVDF
EFR3A_Taeniopygia_gu_23       ---------------------------------------GPTVLEVFNTLLKHLRISVDF
EFR3B_Danio_rerio_24          ---------------------------------------GPTVLEVFNTLLRHLRLSVDY
Anopheles_darlingi_25         ---------------------------------------GPSALDIINNLLMHLKTSVS-
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EFR3B_Mus_musculus_26        ----------------------------------------GPTVLEMFNTLLRQLRLSIDY
Yarrowia_lipolytica_27       ----------------------------------------GLSVMDILGSLLNKQAAIIKH
EFR3A_Rattus_norvegi_28      ----------------------------------------GPTVLEVFNTLLKHLRLSVEL
Gallus_gallus_29             ----------------------------------------GPTVLEVFNTLLKHLRISVDF
Kluyveromyces_lactis_30      ----------------------------------------GLSVIDILRRLI---------
Ornithorhynchus_anat_31      ----------------------------------------GPTVLEVFNTLLKHLRLSVEL
EFR3A_Oryctolagus_cu_32      ----------------------------------------GPTVLEVFNTLLKHLRLSVEF
Nasonia_vitripennis_33       ----------------------------------------GPSVLEIISSLLTHLRVSVS-
Candida_glabrata_34          ----------------------------------------GLSVLDIMRKVLAVQLKSKES
Ixodes_scapularis_35         ----------------------------------------GPSVLEVFHSLLNHLRHSIDM
Daphnia_pulex_36             ----------------------------------------GPSVLEIVNSLLKHLKQSIMS
Tribolium_castaneum_37       ----------------------------------------GPMVLEIINSLLCHLRDSVKH
Anopheles_gambiae_38         ----------------------------------------GPSALDIINNLLMHLKTSVST
EFR3B_Ciona_intestin_39      ----------------------------------------GPSVLDVFNRISKHLHLCAD-
Tetraodon_nigrovirid_40      DGRRTQRPVDARRAEVCPPEDGVRQEHLGGPAGGVVVSPGPTVLEVFNTLLKHLRVSVDL
Solenopsis_invicta_41        ----------------------------------------GPSVLEIINSLLSHLRVSVT-

Cryptococcus_neoform_0       DLRD----------------------ALLPSLVQCVSSLGTHIYYADQINDIVEELALRI
Drosophila_melanogas_1       ----------------TTSEITPEESQYQEALINALGEFANHHPDYQKIEIMLF-IMNTV
EFR3A_Equus_caballus_2       EANDLQGGSVVSANLNASS-KDNDEKIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Neurospora_crassa_3          PGDPDS-MRVEDETIGTDEGAIGQRRELLFRLQQCVGDLATHVYYADQISDMIQTILLKL
Debaryomyces_hanseni_4       LLSQ------------SHYFQEEDVKKLSMIYSNCICNLSTHIYYFDQVPDSIREILIKV
Saccharomyces_cerevi_5       ----------------------NKEVVAQSCI--TMTDLNHKTYYAEQTSDMLYELLLKL
Ustilago_maydis_6            DTRD----------------------SLLPPLVDCISGLGTHVYYADQINDIVEEISGRI
Ascaris_suum_7               QQSK-------------DCPSVEQEKIYQETLINAMGDYANALPDYQKVEIMMF-TVGNI
Harpegnathos_saltato_8       ----------------RNQSSSSDEQLYQEALINALGEFANHLPDYQKIEIMMF-IMSKV
Monodelphis_domestic_9       EAGERR-GSMGSVNVSTST-KDNDERIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Ailuropoda_melanoleu_10      EANDLQGGSGGSANLNSSS-KDNDEKIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Ashbya_gossypii_11           ----------------------SPQVTEACTNTISALNRKTYYKDQPIDMISELLLKL
Nematostella_vectens_12      RFNS-----------SGHGCKLEDEMDFEQSIVHTIGAFAALLPDFQKTDVMLF-IMDKF
Acyrthosiphon_pisum_13       RPPS-----------NTGLSESDGENEYREALIHALGEFAAHLPDYQKIEIMMF-IMSKV
Culex_quinquefasciat_14      ----------------TQHESTPEETQYQEALINALGEFANHHPDYQKIEIMLF-IMNTV
Aedes_aegypti_15             ----------------TQHESTPEETQYQEALINALGEFANHHPDYQKIEIMLF-IMNTV
Camponotus_floridanu_16      ----------------RNQSSSNDEQLYQEALINALGEFANHLPDYQKIEIMMF-IMSKV
Caenorhabditis_elega_17      ERSG-------------KCSDQPAEKMYQEALINAMGDFANALPDYQKVEMMMF-TVGNI
EFR3B_Homo_sapiens_18        ALTG---SYDGAVSLGTKIIKEHEERMFQEAVIKTVGSFASTLPTYQRSEVILF-IMSKV
EFR3A_Homo_sapiens_19        EANDLQGGSVGSVNLNTSS-KDNDEKIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
EFR3B_Ailuropoda_mel_20      ALTG---SYDGAISLGTKIIKEHEERMFQEAVIKTIGSFASTLPTYQRSEVILF-IMSKV
Schizosaccharomyces__21      FDADDQTWY----NMCESPSEKLPRRLYL--LLVCITCLTKHQYYDEEFADVWR-EIDTL
EFR3A_Xenopus_laevis_22      ELGDRR-SSAGSAVFSSSSTRESDERIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
EFR3A_Taeniopygia_gu_23      ELSDRR-SSLESTTLSISS-KESDERIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMSKV
EFR3B_Danio_rerio_24         ELTG---SYD-CTNIGTKIIKEHEERQLQEAVIRTIGSFANTLPTYQRSEVMLF-IMGKV
Anopheles_darlingi_25        ----------------TQHESASEETQYQEALINALGEFANHHPDYQKIEIMLF-IMNTV
EFR3B_Mus_musculus_26        ALTG---SYDGAVSLGSKIIKEHEECMFQEAVIKTIGSFASTLPTYQRSEVILF-IMSKV
Yarrowia_lipolytica_27       AQSN--------------NEASGAFEELIDKLSACMISLGTHIYYADQISDMVGEVLWRC
EFR3A_Rattus_norvegi_28      EASDSQKGSVGSVSLSS---KDNDEKIVQNAVIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Gallus_gallus_29             ELGDRR-SSAGSATFSTSS-KENDERIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Kluyveromyces_lactis_30      ----------------TVQLAKSDSTTVVKQIAVTIKDLNRKTYYKQQSSDMFAELSFKF
Ornithorhynchus_anat_31      ESGDAR-SSVGSASFSTSS-KDNDERIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
EFR3A_Oryctolagus_cu_32      EANDLQGGPAGSASLNTSS-KDNDEKIVQNAIIQTIGFFGSNLPDYQRSEIMMF-IMGKV
Nasonia_vitripennis_33       ----------------RNQSSTNDEQLYQEALINALGEFANHLPDYQKIEIMKF-IMSKV
Candida_glabrata_34          -------------------------MPLVHQCRVTIKDLNNKIYYSEQTSDMLYDLVVKI
Ixodes_scapularis_35         HSEE----------------ELEDEHQFQEAVIGTLGEFANNLPDYQKIEIMMF-ILGKV
Daphnia_pulex_36             AIPV------------DDAEAVADEKQFQESLISALAEFAYHLPDYQKIEIMMF-IIGRT
Tribolium_castaneum_37       GTSM------------------TEEKQYQDALINALGEFANHLPDYQKIEIMMF-IMSKI
Anopheles_gambiae_38         QHDE----------------STPEETQYQEALINALGEFANHHPDYQKIEIMLF-IMNTV
EFR3B_Ciona_intestin_39      ---------------------SKPHSKFEEALIETTGVLAAVVPDYQKLETMTF-YVNRA
Tetraodon_nigrovirid_40      ELGDGS-RRNSAASVSSAR-RESEERIVQNAIIQTIGFFGGNLPDYQRAEVMMF-IMGKV
Solenopsis_invicta_41        ----------------RNQSSSSDEQLYQEALINALGEFANHLPDYQKIEIMMF-IMSKV

Cryptococcus_neoform_0       -AE-----------------------------IPSSD----------TAR------SEII
Drosophila_melanogas_1       -PD-----------------------------LSKK-----------SKG------DQML
EFR3A_Equus_caballus_2       -PV-----------------------------FGTSTHTLDISQLG-DLG------TRRI
Neurospora_crassa_3          RPS-----------------------------RPTSPPNSSPNGERSDNGAAE---DQPL
Debaryomyces_hanseni_4       --------------------------------VSILENSVISGNANSSGV------YRFI
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Saccharomyces_cerevi_5       --------------------------------KSDTVKDVEKNAVV-EDI------DFLV
Ustilago_maydis_6            -AALQMPESISDAASVKASNNLGAVHRGQQQDLSSHLHRQRLANAGPEQR------DESI
Ascaris_suum_7               -PK------------------------------LSEDGRALK-------PG------DAFL
Harpegnathos_saltato_8       -P-------------------------------YSQPDRIVSV-----GKG------DVLL
Monodelphis_domestic_9       -PV------------------------------FGTTTHTLDTSQLG-DLG------TRRI
Ailuropoda_melanoleu_10      -PV------------------------------FGTSTHTLDISQLG-DLG------TRRI
Ashbya_gossypii_11           -KE-----------------------------------------------HPG------QREK
Nematostella_vectens_12      -PH------------------------------RNTNQHTSDRRSLRFTES------DVEL
Acyrthosiphon_pisum_13       -PQ------------------------------FKSSNNPN----------------DLHV
Culex_quinquefasciat_14      -PD------------------------------PSKK-----------NKG------DTLL
Aedes_aegypti_15             -PD------------------------------PSKK-----------NKG------DQLL
Camponotus_floridanu_16      -P-------------------------------YSQPDRIVSV-----GKG------DVLL
Caenorhabditis_elega_17      -PN------------------------------LDERKS---------KQG------DEFL
EFR3B_Homo_sapiens_18        -P-------------------------------RPSLHQAVDTGRTG-ENR------NRLT
EFR3A_Homo_sapiens_19        -PV------------------------------FGTSTHTLDISQLG-DLG------TRRI
EFR3B_Ailuropoda_mel_20      -P-------------------------------LPSLHHPMETGRTG-ENR------NRLT
Schizosaccharomyces__21      ---------------------------------ANSET-------------------SSAI
EFR3A_Xenopus_laevis_22      -PV------------------------------FGSSPHMLDTSQLG-DMG------TKRI
EFR3A_Taeniopygia_gu_23      -PV------------------------------LGTTSQSLDPSNLG-DLG------PRRI
EFR3B_Danio_rerio_24         -P-------------------------------IPGLHPTLPSIGSG-PEG------NRMI
Anopheles_darlingi_25        -PD------------------------------PSNK-----------SRG------DQLL
EFR3B_Mus_musculus_26        -P-------------------------------LPSVHHPVETGRTG-ENR------NRLT
Yarrowia_lipolytica_27       -TD------------------------------PATAGQTGHAVSADDGTGLQIKRPTRRV
EFR3A_Rattus_norvegi_28      -PV------------------------------FGTSTHTLDISQLG-DLG------TRRI
Gallus_gallus_29             -PV------------------------------LGATSQSLDTSHLG-DLG------TRRI
Kluyveromyces_lactis_30      -IE------------------------------SGKPHH----------------LELF
Ornithorhynchus_anat_31      -PV------------------------------FGTTTHTLDTSQLG-DLG------TRRI
EFR3A_Oryctolagus_cu_32      -PV------------------------------FGTSAHTLDISQLG-DLG------TRRI
Nasonia_vitripennis_33       -P-------------------------------YGEPDSITSA-----GKG------DVLL
Candida_glabrata_34          -KN------------------------------VQNEV----------------EKRI
Ixodes_scapularis_35         -P-------------------------------QSQEAESSDPRQ---RNS------EVLL
Daphnia_pulex_36             -PV------------------------------AGEFDPENVQA----------ETLL
Tribolium_castaneum_37       -PF------------------------------PLVDNHTPA-----------DNLL
Anopheles_gambiae_38         -PD------------------------------PSHK-----------SKG------DHLL
EFR3B_Ciona_intestin_39      -NE------------------------------VLHNSEDLNE-----TDV------EQNF
Tetraodon_nigrovirid_40      -PV------------------------------FGTPCHTLDTVKIE----------
Solenopsis_invicta_41        -P-------------------------------YSQPDRIVSV-----GKG------DVLL

Cryptococcus_neoform_0       RVLTCCISGVMIMTD---------------------------------AADNDAESKQGN
Drosophila_melanogas_1       QNIL--LKSLLKVGT-----------------------------------QYST----
EFR3A_Equus_caballus_2       QIML--LRSLLMVTS-----------------------------------GYKA----
Neurospora_crassa_3          ESLF--ALTVAKIAA-------------------LKAIKAILWVASPRTKMSGGHI----
Debaryomyces_hanseni_4       ITLLEDISIIFDLLQ-------------------------------------TKPS----
Saccharomyces_cerevi_5       EHIT-----------------------------------------------------
Ustilago_maydis_6            RVLLFCLQGVLKATHQSSGEIHEAVDVKSNGAEKGKAAAASTDSKIGLAH----------
Ascaris_suum_7               QHVL--VKTLLKVAT-----------------------------------KYKT----
Harpegnathos_saltato_8       QSIL--LKSLLKVGT-----------------------------------KYQT----
Monodelphis_domestic_9       QIML--LRSLLMVTS-----------------------------------GYKA----
Ailuropoda_melanoleu_10      QIML--LRSLLMVTS-----------------------------------GYKA----
Ashbya_gossypii_11           DILISDLQAVLQTVG------------------------------------------
Nematostella_vectens_12      QKML--LHSLRQVSV-----------------------------------SYNP----
Acyrthosiphon_pisum_13       QRMC--LKSLLMVST-----------------------------------KYSS----
Culex_quinquefasciat_14      QNIL--LKSLLKVGT-----------------------------------QYRT----
Aedes_aegypti_15             QNIL--LKSLLKVGT-----------------------------------QYRT----
Camponotus_floridanu_16      QSIL--LKSLLKVGT-----------------------------------KYQT----
Caenorhabditis_elega_17      QHVL--VKTLLKVAT-----------------------------------KYRT----
EFR3B_Homo_sapiens_18        QIML--LKSLLQVST-----------------------------------GFQC----
EFR3A_Homo_sapiens_19        QIML--LRSLLMVTS-----------------------------------GYKA----
EFR3B_Ailuropoda_mel_20      QIML--LKSLLQVST-----------------------------------GFQC----
Schizosaccharomyces__21      QMVA--LTAFHKLQN-----------------------------------EKLN----
EFR3A_Xenopus_laevis_22      QIML--LRSLLMVTS-----------------------------------GYKA----
EFR3A_Taeniopygia_gu_23      QIML--LRSLLMVTS-----------------------------------GYKA----
EFR3B_Danio_rerio_24         QVML--LKSLRQVTC-----------------------------------GFQT----
Anopheles_darlingi_25        QNIL--LKSLLKVGT-----------------------------------QYRT----
EFR3B_Mus_musculus_26        QIML--LKSLLQVST-----------------------------------GFQC----
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Yarrowia_lipolytica_27       FTTLSANNAELQHSS------------------DESVGAATGGTANGSAGVGSFSHDNSP
EFR3A_Rattus_norvegi_28      QIML--LRSLLMVTS---------------------------------------GYKA----
Gallus_gallus_29             QIML--LRSLLMVTS---------------------------------------GYKA----
Kluyveromyces_lactis_30      QLDL---DSLISVTS--------------------------------------------------
Ornithorhynchus_anat_31      QIML--LRSLLMVTS---------------------------------------GYKA----
EFR3A_Oryctolagus_cu_32      QIML--LRSLLMVTS---------------------------------------GYKA----
Nasonia_vitripennis_33       QSIL--LKSLLKVGT---------------------------------------KYQT----
Candida_glabrata_34          LVDD--MKYIVD-----------------------------------------------------
Ixodes_scapularis_35         QHIL--LKSLLTVGQ---------------------------------------KYRT----
Daphnia_pulex_36             QHML--LKCLLKVSY---------------------------------------KYQS----
Tribolium_castaneum_37       QSIL--LKSLLKVGT---------------------------------------KYQT----
Anopheles_gambiae_38         QNIL--LKSLLKVGT---------------------------------------QYRT----
EFR3B_Ciona_intestin_39      AHLL--LLCLVQIAK---------------------------------------TYHC----
Tetraodon_nigrovirid_40      ------------VTS---------------------------------------GFKS----
Solenopsis_invicta_41        QSIL--LKSLLKVGT---------------------------------------KYQT----

Cryptococcus_neoform_0       NVPQPTPSTPGSPTPPNKGKLPAPAETPFLTPLFEYLRPQAHRSSRRNPISPEVWQ----
Drosophila_melanogas_1       ---------------------------------------------VSFEKAFPASFLQ----
EFR3A_Equus_caballus_2       ---------------------------------------------KTIVTALPGSFLD----
Neurospora_crassa_3          ---------------------------------------------NLSRNRVPIQTWD----
Debaryomyces_hanseni_4       ---------------------------------------------NISRNHVSLEDWDLSLI
Saccharomyces_cerevi_5       ------------------------------------------------QPSISLELFI----
Ustilago_maydis_6            ---------------------------------------------AGTRNRVAPASIL----
Ascaris_suum_7               ---------------------------------------------AYLATIFADSFLS----
Harpegnathos_saltato_8       ---------------------------------------------IHLNTTFPPSFLD----
Monodelphis_domestic_9       ---------------------------------------------KTIVTALPAPFLD----
Ailuropoda_melanoleu_10      ---------------------------------------------KTIVTALPGSFLD----
Ashbya_gossypii_11           ------------------------------------------------QPFMTLELFL----
Nematostella_vectens_12      ---------------------------------------------TSLSAVFSPSFMD----
Acyrthosiphon_pisum_13       ---------------------------------------------VQMNATFPQSFLD----
Culex_quinquefasciat_14      ---------------------------------------------VSFEKAFPVSFLQ----
Aedes_aegypti_15             ---------------------------------------------VSFEKAFPVSFLQ----
Camponotus_floridanu_16      ---------------------------------------------IHLNTTFPPSFLD----
Caenorhabditis_elega_17      ---------------------------------------------AYLATVFTDSFLD----
EFR3B_Homo_sapiens_18        ---------------------------------------------NNMMSALPSNFLD----
EFR3A_Homo_sapiens_19        ---------------------------------------------KTIVTALPGSFLD----
EFR3B_Ailuropoda_mel_20      ---------------------------------------------NNMMSALPSNFLD----
Schizosaccharomyces__21      ---------------------------------------------TKKESSAPLSLVT----
EFR3A_Xenopus_laevis_22      ---------------------------------------------KTIAAALPPAFLD----
EFR3A_Taeniopygia_gu_23      ---------------------------------------------TTISNALPAPFLD----
EFR3B_Danio_rerio_24         ---------------------------------------------TNMLTALPNSFLD----
Anopheles_darlingi_25        ---------------------------------------------VSFEKAFPLSFLQ----
EFR3B_Mus_musculus_26        ---------------------------------------------NNMMSALPSNFLD----
Yarrowia_lipolytica_27       DVLIRRLAIVEGFFRLQNEEQD---------------------MTAHNSVPLSAWD----
EFR3A_Rattus_norvegi_28      ---------------------------------------------KTIVTALPGSFLD----
Gallus_gallus_29             ---------------------------------------------MTITNALPAPFLD----
Kluyveromyces_lactis_30      ------------------------------------------------DQCLDLDLFG----
Ornithorhynchus_anat_31      ---------------------------------------------KTIVTALPPPFLD----
EFR3A_Oryctolagus_cu_32      ---------------------------------------------KTIVTALPGSFLD----
Nasonia_vitripennis_33       ---------------------------------------------IHLNTTFPPSFLQ----
Candida_glabrata_34          ---------------------------------------------DISQPVINVDLLT----
Ixodes_scapularis_35         ---------------------------------------------VQLGQAFPASFLH----
Daphnia_pulex_36             ---------------------------------------------TNFSTSLPLTFLD----
Tribolium_castaneum_37       ---------------------------------------------IHLNSTFPVSFLE----
Anopheles_gambiae_38         ---------------------------------------------VSFEKAFPVSFLQ----
EFR3B_Ciona_intestin_39      ---------------------------------------------SNISN-LTVTLLE----
Tetraodon_nigrovirid_40      ---------------------------------------------KSMAAALPPSFLD----
Solenopsis_invicta_41        ---------------------------------------------IHLNTTFPPSFLD----

Cryptococcus_neoform_0       ---------------ETLPLLCEADYSVRSTYARALILFLETEMQRGPTPRT-TPASGGS
Drosophila_melanogas_1       ---------------PLLKMARAPHNPTRMV----VMQILQALL-----DRH--------
EFR3A_Equus_caballus_2       ---------------PLLSPSLMEDYELRQL----VLEVMHNLM-----DRH--------
Neurospora_crassa_3          ---------------GTQWLLRDPDGLVRKA----YVDAVVTWL-----DRETTPA----
Debaryomyces_hanseni_4       LLSSEIGLNPTKDQKPLFSYEQITDIQFK------YLRVFGYFL-----NNEL-------
Saccharomyces_cerevi_5       ---------------DLAH--YMKNHIICLF------NIVETEV-----PSS--------
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Ustilago_maydis_6           ---------------PTASLLASPNHAVRLA----YAQTLITLFRDEFDREQLERESAVF
Ascaris_suum_7              ---------------TLLQLALVADPCVRLD----TQHIFHTLL-----DRH--------
Harpegnathos_saltato_8      ---------------PLLRMSLAADAEMRLL----VQKIFHTLI-----DRH--------
Monodelphis_domestic_9      ---------------PILSPSLMEDYELRQL----VLEIMHNLT-----DRH--------
Ailuropoda_melanoleu_10     ---------------PLLSPSLMEDYELRQL----VLEVMHNLM-----DRH--------
Ashbya_gossypii_11          ---------------ELAPYVPDRLELFSLV----TDKLPGGFV----------------
Nematostella_vectens_12     ---------------AIFHAAIVENPEVRQL----ALEVIFALI-----DRH--------
Acyrthosiphon_pisum_13      ---------------LLLKTLTASEDEIRFI----VLRILHTLL-----DRH--------
Culex_quinquefasciat_14     ---------------PLLKMARASSLPIRVI----VMQIFQQLL-----DRH--------
Aedes_aegypti_15            ---------------PLLKMARASSVAIRVI----VMQIFQQLL-----DRH--------
Camponotus_floridanu_16     ---------------PLLRMSLAADAEMRLL----VQKIFHTLI-----DRH--------
Caenorhabditis_elega_17     ---------------TLLLLALVRDPQVRLA----TQQIFHTLL-----DRH--------
EFR3B_Homo_sapiens_18       ---------------RLLSTALMEDAEIRLF----VLEILISFI-----DRH--------
EFR3A_Homo_sapiens_19       ---------------PLLSPSLMEDYELRQL----VLEVMHNLM-----DRH--------
EFR3B_Ailuropoda_mel_20     ---------------RLLSTALMEDAEIRLF----VLEILISFI-----DRH--------
Schizosaccharomyces__21     ---------------DFLLHSWPKSAE----------------------RLH--------
EFR3A_Xenopus_laevis_22     ---------------PLLSPSLMEDCELRQL----VLEILHNLI-----DRH--------
EFR3A_Taeniopygia_gu_23     ---------------PLLSPSLMEDSELRQL----VLEILHNLI-----DRH--------
EFR3B_Danio_rerio_24        ---------------PMLSFALLEDAEIRLL----VLEILVSLI-----DRH--------
Anopheles_darlingi_25       ---------------PLLKMARAGSIPIRII----VMQIFQQLL-----DRH--------
EFR3B_Mus_musculus_26       ---------------RLLSTALMEDAEIRLF----VLEILISFI-----DRH--------
Yarrowia_lipolytica_27      ---------------GTQYLLNHDSAIVKEA----YVFCFVAFL-----EYE--------
EFR3A_Rattus_norvegi_28     ---------------PLLSPSLMEDYELRQL----VLEVMHNLM-----DRH--------
Gallus_gallus_29            ---------------PLLSPSLMEDSELRQL----VLEILHNLI-----DRH--------
Kluyveromyces_lactis_30     ---------------EFLPYVTDKTQLSKLL----YPEAPHQVI----------------
Ornithorhynchus_anat_31     ---------------PLLSASLMEDYELRQL----VLEILHNLI-----DRH--------
EFR3A_Oryctolagus_cu_32     ---------------PLLSPSLMEDYELRQL----VLEVMHNLM-----DRH--------
Nasonia_vitripennis_33      ---------------PLLRMSLASDFEMRLL----VQKIFHTLI-----DRH--------
Candida_glabrata_34         ---------------ELVP--FMKGSVIQLL------NITEEHI-----SGG--------
Ixodes_scapularis_35        ---------------SLLRMSLAADPSVRLV----VQSILHTLL-----DRH--------
Daphnia_pulex_36            ---------------PLLRTSLGQDAYVRVL----VQEILHCLL-----DRH--------
Tribolium_castaneum_37      ---------------PLLRMSLAPDPEMRLL----VQKILHTLL-----DRH--------
Anopheles_gambiae_38        ---------------PLLKMARAASIPIRII----VMQIFQQLL-----DRH--------
EFR3B_Ciona_intestin_39     ---------------PLLKVAFSAQPGDRLL----AQSLLASLL-----DKN--------
Tetraodon_nigrovirid_40     ---------------PLFSISLMEDGELRQL----VLEILHNII-----DRH--------
Solenopsis_invicta_41       ---------------PLLRMSLAADAEMRLL----VQKIFHTLI-----DRR--------

Cryptococcus_neoform_0      GSETATPNREKGVSFKVTEPTPGETATQTQ--------------SGSGATTPPKRNSRSH
Drosophila_melanogas_1      ----QNEQVLSSVS-VKPYPA---LSQEPP--------------SRSDIIFTHKY-----
EFR3A_Equus_caballus_2      ----DNRAKLRGIR-IIPDVADLKIKREKI--------------CRQDTSFMKKN-----
Neurospora_crassa_3         ----DSLARDESARTTLKNRAAQENNLARRVVSSAS--------ARVDKSANAPR-----
Debaryomyces_hanseni_4      ----VTRNENMETG-AINSIESFNVGGDHL--------------QPDYNNYISDP-----
Saccharomyces_cerevi_5      ----ILFSKLYS---LLRELDSHGVQKEMMEEIF----------DKYGKMALLSG-----
Ustilago_maydis_6           AAAP--------IG---EKVSDAIGVVHAIGAAAHVMCLSKSLSPPAQVLGNLRESPLEL
Ascaris_suum_7              ----DNLSLLQHVP-YVPDVADLQLTVEKC--------------SRADQMFMQKH-----
Harpegnathos_saltato_8      ----RNITKLAKP---TVNVTELDLVIEKA--------------SRPDVIFIRKH-----
Monodelphis_domestic_9      ----DNRAKLRGIR-IIPDVADLKIKREKI--------------SKQDASFMKKN-----
Ailuropoda_melanoleu_10     ----DNRAKLRGIR-IIPDVADLKIKREKI--------------CRQDTSFMKKN-----
Ashbya_gossypii_11          ----MNKFFLFLVA-LESPGEQEKLLDDAF--------------AKSKNFTL--------
Nematostella_vectens_12     ----NNSKNLGLNG-MLKDGKEIQLNVEKC--------------PKQDLMFFQKY-----
Acyrthosiphon_pisum_13      ----NNASKLSNIF-YRVNITKSEINLEKC--------------SRSDTIFIRKH-----
Culex_quinquefasciat_14     ----QNQHLMNLIS--INNYPTLTVEQP----------------SRSDILFTHKY-----
Aedes_aegypti_15            ----QNQHLLNMIS--VTNYPTLTVEQA----------------SRSDILFTHKH-----
Camponotus_floridanu_16     ----RNIMKLAKP---TVNMVELGLVIEKA--------------SRPDVIFIRKH-----
Caenorhabditis_elega_17     ----DNAANLVHLG-YELDVSDVQLTVEKC--------------SRADQMFMRKH-----
EFR3B_Homo_sapiens_18       ----GNRHKFSTIS-TLSDISVLKLKVDKC--------------SRQDTVFMKKH-----
EFR3A_Homo_sapiens_19       ----DNRAKLRGIR-IIPDVADLKIKREKI--------------CRQDTSFMKKN-----
EFR3B_Ailuropoda_mel_20     ----GNRHKFSTIS-TLSDISVLKLKVDKC--------------SRQDTVFMKKH-----
Schizosaccharomyces__21     ----TSQSPFVRIKTAEVFYEFLCFLRPSL--------------INFDTILRKSA--ITS
EFR3A_Xenopus_laevis_22     ----DNRAKLRGIR-IIPDVADLKIKREKI--------------SKQDVNFMKKH-----
EFR3A_Taeniopygia_gu_23     ----DNRAKLRGIR-IIPDVSDLKIKREKI--------------SRQDVSFMKKH-----
EFR3B_Danio_rerio_24        ----DNLPKFSNIS-IISDISVLKLKVDKC--------------SRQDNLFMKKH-----
Anopheles_darlingi_25       ----QNQHLLNVI---SVNNYP-TLTIEQA--------------SRSDILFTHKY-----
EFR3B_Mus_musculus_26       ----GNRHKFSTIS-TLGDISVLKLKVDKC--------------SRQDTVFMKKH-----
Yarrowia_lipolytica_27      ----------------FGNPDRFQIGFGRRG-------------YNQNVAYGFVS-----
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EFR3A_Rattus_norvegi_28      ----DNRAKLRGIR-IIPDVADLKIKREKI--------------CRQDTSFMKKN-----
Gallus_gallus_29             ----DNRAKLRGIR-IIPDVSDLKIKRDKI--------------SRQDVSFMKKH-----
Kluyveromyces_lactis_30      -----FIRFFEKVSTLSKQDTEIAISTSFA--------------YYKAASL---------
Ornithorhynchus_anat_31      ----DNRAKLRGIR-IIPDVADLKIKREKI--------------SRQDASFMKKN-----
EFR3A_Oryctolagus_cu_32      ----DNRAKLRGIR-IIPDVADLKIKREKI--------------CRQDTSFMKKN-----
Nasonia_vitripennis_33       ----KNITKLAKP---TVNIIELDLAIEKA--------------SRPDVIFIRKH-----
Candida_glabrata_34          ----STLSRLFQ---MVRDIEDRNLQ-------------------SKAMSIIFDKYKKIIL
Ixodes_scapularis_35         ----GNLDQLRSMPSCEGPLGDLRL--EKC--------------SRQDTVFMRKH-----
Daphnia_pulex_36             ----ENRLKLKKP---CIDICGLNLVFDKC--------------SRADSLFYKNH-----
Tribolium_castaneum_37       ----QNLEKLTKP---TVNVSKLNLVLEKS--------------SRPDLIFINKH-----
Anopheles_gambiae_38         ----QNQHLLNVIN--VSHYPTLTIETP-----------------SRSDILFTHKY-----
EFR3B_Ciona_intestin_39      ----KNYGKLKLVS-HQREVESLKLITSTA--------------GKYDGDFLERR-----
Tetraodon_nigrovirid_40      ----DNRAKLRGIR-IIPNVAALKIKREKI--------------TKQDVAFMKKH-----
Solenopsis_invicta_41        ----RNITKLAKP---TVNVVELDLAIEKA--------------SRPDVIFIRKH-----

Cryptococcus_neoform_0       RPSLPL---------NRLQSYT------HLSSFDNV--AT-PLDFAAALRILDAMHMVVP
Drosophila_melanogas_1       GANIMQ---------ALIDSMAL-----S-DRVDAL--TSSFNTAALLIVEMSCNETVQE
EFR3A_Equus_caballus_2       GQQLYR---------HIYLGCKE-----EDNVQKNY--ELLYTSLALITIELANEEVVID
Neurospora_crassa_3          SHFLQL---------LHLAIYDH---------ALQF--VDYENDLVLLHVLLAKLVSQLG
Debaryomyces_hanseni_4       GNFI-----------AHFLGYVD-----KFFSGQSL--INID-NASLLQKVLKNMILILG
Saccharomyces_cerevi_5       ---LNY---------FLENVS-E-----PEYTYYSY--HLQAANFLKLNDYKSQTEYKMQ
Ustilago_maydis_6            LPQIDRINADPGRPGSLSSGGS------GTPAAEST--AALPVDYVAVAQALEHAVTALP
Ascaris_suum_7               VVAFTN---------MLYKSVCLVPERREGDMAEHI--DAILCTMALLCVEVGIDEVIIE
Harpegnathos_saltato_8       GPEIYL---------ALYESLEL-----SSNTVDNV--ESIYTTLALLAIELASEETVLE
Monodelphis_domestic_9       GQQLYR---------HIYLGCKE-----DDNVQKNF--ELLYTSLALITIELANEEVVID
Ailuropoda_melanoleu_10      GQQLYR---------HIYLGCKE-----EDNVQKNY--ELLYTSLALITIELANEEVVID
Ashbya_gossypii_11           LSGLIY---------FLE----------KGNTPSNL--YYCYHTKAARFLEFDDYHSQAQ
Nematostella_vectens_12      HDQIIW---------YLYESASM-----RTNNVSNI--LAIYVTMATISTEMSEMEVISQ
Acyrthosiphon_pisum_13       AQDIYV---------SIYESLEM-----TNNTVENV--EAVYTTLALICIELLSEETVLD
Culex_quinquefasciat_14      GSNILQ---------ALIDAMTQ-----E-NNMEIL--KPTYNTAGLMVVEMACGETVQE
Aedes_aegypti_15             GSNILQ---------AILDGMSQ-----E-NHMEVL--KSSYNTAGLMVVEMACSETVQE
Camponotus_floridanu_16      GPEIYL---------ALYESLEL-----SSNTVENV--ESIYTTLALLAIELASEETILE
Caenorhabditis_elega_17      IGEITY---------MLLRAVALAD---ENDLNKHI--DAVLCTMSLLCI-----ESLIE
EFR3B_Homo_sapiens_18        SQQLYR---------HIYLSCKE-----ETNVQKHY--EALYGLLALISIELANEEVVVD
EFR3A_Homo_sapiens_19        GQQLYR---------HIYLGCKE-----EDNVQKNY--ELLYTSLALITIELANEEVVID
EFR3B_Ailuropoda_mel_20      SQQLYR---------HIYLSCKE-----ETNIQKHY--EALYGLLALISIELANEEVVVD
Schizosaccharomyces__21      FSVLWD---------FIYETSWH-----IERWLKVFSVQSEFYILKLIIQRLYQLYGPVS
EFR3A_Xenopus_laevis_22      GQQLYR---------HIYLGCKE-----DDNVHKNY--ELLYTTLALVTIELANEEVVID
EFR3A_Taeniopygia_gu_23      GQQLYR---------HIYLGCKE-----EDNVQKNF--ELLFTSLALTTIELANEEVVID
EFR3B_Danio_rerio_24         AQHLYR---------HIYLCSKE-----QSSVQPHF--EKLYSLLALISMELANEEVVVD
Anopheles_darlingi_25        GSNILQ---------AIIESMSQ-----E-NHLEVL--KSSYNTIALVIVEMACGETVQE
EFR3B_Mus_musculus_26        SQQLYR---------HIYLSCKE-----ETNIQKHY--EALYGLLALISIELANEEVVVD
Yarrowia_lipolytica_27       HLSMQL---------NKLITNTR-------ATNGDF--LLGNSLLQNIVIRLQQDGVVAT
EFR3A_Rattus_norvegi_28      GQQLYR---------HIYLGCKE-----EDNVQKNY--ELLYTSLALITIELANEEVVID
Gallus_gallus_29             GQQLYR---------HIYLGCKE-----EDNVQKNF--ELLYTSLALITIELANEEVVID
Kluyveromyces_lactis_30      LSGLAY---------YVN----------NNRPSDGY--YA-YHHHASKFLGLADYQTQVE
Ornithorhynchus_anat_31      GQQLYR---------HIYLGCKE-----EDNVQKNF--ELLYTSLALTTIELANEEVVID
EFR3A_Oryctolagus_cu_32      GQQLYR---------HIYLGCKE-----EDNVQKNY--ELLYTSLALITIELANEEVVID
Nasonia_vitripennis_33       GPEIYM---------ALYESLEL-----TNNRVENV--EAIYTTLALLTVELASEETVLE
Candida_glabrata_34          LPGLNY---------FQM-NIKE-----PEYTYYLY--HFNAAKTLGVTSYYSETQQKLD
Ixodes_scapularis_35         GPDILY---------HVYENAQL-----ANNGPANF--QALFTTLALLCVELGSEDVLID
Daphnia_pulex_36             GSRILV---------NLSESLDL-----TNVTRENI--EAIYCTAALVCVELATDEMLVD
Tribolium_castaneum_37       GPIIYD---------ALYTTLQM-----DSNTPDNV--EAVYTTLALLCVELASAETVID
Anopheles_gambiae_38         GSNILQ---------AIIESMSQ-----E-NHLEVL--KSSYNTIALVIVEMACGETMQE
EFR3B_Ciona_intestin_39      LPSIYN---------WLYSSYTL-----ETNTIANF--TSLYKCAAVLCLSIVSHDVIMD
Tetraodon_nigrovirid_40      GQQLYR---------HIYLGCKE-----EDNVHKNF--ELLFTTLAILTIELANEDAIVD
Solenopsis_invicta_41        GPEIYL---------ALYESLEL-----SSNTVENV--ESIYTTLALLAIELASEETVLE

Cryptococcus_neoform_0       VAAL---VTGAPMLLAVDRD-AGNELV-RR----PGDGR------AGAW-----------
Drosophila_melanogas_1       FLLF---ILGIQQVACT-VD-TLGNVH-KC----SLHAI------SIGL-L---------
EFR3A_Equus_caballus_2       LIRL---AIALQDSAIINED-NLPMFH-RC----GIMAL------VAAY-L---------
Neurospora_crassa_3          VNAA---KFGIPMIFRLQED--IQDVE-TPLGKVRIGSL------VHGY-LWTLTEKFDC
Debaryomyces_hanseni_4       INFI---NNFVPFFFYWQLP-LNPNLV-DD----NTRIK-----DTLGYTL---------
Saccharomyces_cerevi_5       TRTL---FTKEDLLSYYSDT-GSNKYS-KK----GAQILLSRDNQISTSDL---------
Ustilago_maydis_6            CSAA---LALTPMLVALDKD-AGSRLT-VH----GATVN------TG-------------
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Ascaris_suum_7              LFRL---SFALQSIAVDSSS-GFKGSK-RI----AVHNM------VARY-L---------
Harpegnathos_saltato_8      LLRL---VLSLQDLALTSGQINLGL---KF----NLHAI------VISL-L---------
Monodelphis_domestic_9      LIRV---AIALQDNAIINED-NLPMFH-RC----AMMAL------VAAY-L---------
Ailuropoda_melanoleu_10     LIRL---AIALQDSAIINED-NLPMFH-RC----GIMAL------VAAY-L---------
Ashbya_gossypii_11          YKRQEREIFTRNDLVNYYSDPGCNRYA-EK----GLRIL---------------------
Nematostella_vectens_12     LVPL---VFGFQNMAMKEES-KISTAC-RC----ALHAV------VAAF-L---------
Acyrthosiphon_pisum_13      FIRL---ILSIQELAITNA--VLSTQQ-KF----HLHGL------VISI-M---------
Culex_quinquefasciat_14     FLLF---VLGVQQVAIT-EA-ELSPKH-RC----NLHSI------AISL-L---------
Aedes_aegypti_15            FLLF---VLSVQQVAVA-EV-ELSPKH-RC----NLHSI------AISI-L---------
Camponotus_floridanu_16     LLRL---VLSLQDLALT-SG-QISLSL-KF----NLHAT------VISL-L---------
Caenorhabditis_elega_17     LFRL---SLALQQLALDSKQ-NFSDAK-RN----CIHNM------VAKY-L---------
EFR3B_Homo_sapiens_18       LIRL---VLAVQDVAQVNEE-NLPVYN-RC----ALYAL------GAAY-L---------
EFR3A_Homo_sapiens_19       LIRL---AIALQDSAIINED-NLPMFH-RC----GIMAL------VAAY-L---------
EFR3B_Ailuropoda_mel_20     LIRL---VLAVQDVAQVNEE-NLPVYN-RC----ALYAL------GAAY-L---------
Schizosaccharomyces__21     VTAV---LPAMYRGLRPFEN-DPP----RC----IAEAV------TAYY-I---------
EFR3A_Xenopus_laevis_22     LIRV---AIALQDIAITNED-NLQMFN-RC----GIMGM------VAAY-L---------
EFR3A_Taeniopygia_gu_23     LIRL---AIALQDIAIINED-NLPMFN-RC----GVMAL------VAAY-L---------
EFR3B_Danio_rerio_24        LIRV---ALALQDLALSSEE-MLPVYN-RC----AIHAL------SSAY-L---------
Anopheles_darlingi_25       FLLF---ILGLQQVAVT-EV-ELSPKH-RC----NLHSI------AISL-L---------
EFR3B_Mus_musculus_26       LIRL---VLAVQDVAQVNEE-NLPTYN-RC----ALYAL------GAAY-L---------
Yarrowia_lipolytica_27      FPHM----LKAHELGRALVT--------GQSSESNTLAQGIIIEDIFTLYL---------
EFR3A_Rattus_norvegi_28     LIRL---AIALQDSAIINED-NLPMFH-RC----GIMAL------VAAY-L---------
Gallus_gallus_29            LIRL---AIALQDVAIINED-NLPMFN-RC----GIMAL------VAAY-L---------
Kluyveromyces_lactis_30     FKRKDNDIFTKEDLLNYYSDAGSNIYS-EK----GRDIL-----------L---------
Ornithorhynchus_anat_31     LIRV---AIALQENAINNED-NLPMFH-RC----GIMAL------TAAY-L---------
EFR3A_Oryctolagus_cu_32     LIRL---VIALQDSAIINED-NLPMFH-RC----GIMAL------VAAY-L---------
Nasonia_vitripennis_33      LLRL---VMSLQDLALT-SI-QMNIAI-KF----NLHST------VISL-L---------
Candida_glabrata_34         NGEL---FTKEELMKYYKNA-NNTQFG-EK----GMQIL-------MSY-D---------
Ixodes_scapularis_35        LLRL---MFAIQELPTTGGA-SLSTAQ-VA----SLHGL------VAAF-L---------
Daphnia_pulex_36            ILRW---ALAVQDVALTNT--MLHPTN-RI----SLHVV------SLSI-F---------
Tribolium_castaneum_37      LLQL---VLGIQSLALNST--TLSTSQ-KF----NLHAL------VISL-L---------
Anopheles_gambiae_38        FLLF---ILGVQQVAVT-EV-ELSPKH-RC----NLHSI------AISL-L---------
EFR3B_Ciona_intestin_39     VTRI---MLAVQSVAVDSIS-NSGMTHFSC----GVLAS------TSCC-L---------
Tetraodon_nigrovirid_40     LIRL---AVALQEMALANEE-NLPMFN-RC----GVMAL------VAAY-L---------
Solenopsis_invicta_41       LLRL---VLSLQDLALTSSQISLPL---KF----NLHAI------VISL-L---------

Cryptococcus_neoform_0      --------------------VLERKRAIRELVSLV--------------------WRRIA
Drosophila_melanogas_1      -------------------VLISRVSGINNLLEYA--------------------QKIVD
EFR3A_Equus_caballus_2      -------------------NFVSQMIAVPAFCQHV--------------------SKVIE
Neurospora_crassa_3         EGTAPGSAIHGEIIRRRSKNFWVEGINIPAPAVDLVGTPGQARP-----------PPQMN
Debaryomyces_hanseni_4      ---------IYHSLIKMDKIYELNYVRESEFFNSL--------------------LGDIN
Saccharomyces_cerevi_5      -------------------LSDSQVRTTPLEYKNV--------------------PNAIF
Ustilago_maydis_6           ----------------------------LENQRRLSSRMVA-------------ARVLA
Ascaris_suum_7              -------------------NLSSQLMAIPSLCQHV--------------------QQVVK
Harpegnathos_saltato_8      -------------------VLISYACNITALMDYA--------------------KKVVE
Monodelphis_domestic_9      -------------------NFLSQMIAVPAFCQHV--------------------SKVIE
Ailuropoda_melanoleu_10     -------------------NFVSQMIAVPAFCQHV--------------------SKVIE
Ashbya_gossypii_11          ----------------------ISQNTRVST-------------------------TDLTE
Nematostella_vectens_12     -------------------ILAAQLLRLETLSDYA--------------------EEVYE
Acyrthosiphon_pisum_13      -------------------LLVAIVTDLHPLKDYV--------------------EKVIE
Culex_quinquefasciat_14     -------------------ILIGRCTGISTLVEYA--------------------EKVIQ
Aedes_aegypti_15            -------------------ILIGRCTGIGPLVEYA--------------------EKVIQ
Camponotus_floridanu_16     -------------------VLISYVCNITVLMDYA--------------------EKVVD
Caenorhabditis_elega_17     -------------------NLSAQLIANPSLCQQV--------------------QHVVS
EFR3B_Homo_sapiens_18       -------------------NLISQLTTVPAFCQHI--------------------HEVIE
EFR3A_Homo_sapiens_19       -------------------NFVSQMIAVPAFCQHV--------------------SKVIE
EFR3B_Ailuropoda_mel_20     -------------------NLISQLTTVPAFCQHI--------------------REVIE
Schizosaccharomyces__21     -------------------IYIGENLKITTLQSSG--------------------RKWLD
EFR3A_Xenopus_laevis_22     -------------------NFLSQMIAVPAFCQHV--------------------SKVIE
EFR3A_Taeniopygia_gu_23     -------------------NFLSQMIAVPAFCQHV--------------------SKVIE
EFR3B_Danio_rerio_24        -------------------NLISQLTTVPAFCQHV--------------------HEVIE
Anopheles_darlingi_25       -------------------ILLARCTAIGTLVEYA--------------------EKLIE
EFR3B_Mus_musculus_26       -------------------NLISQLTTVPAFCQHI--------------------HEVIE
Yarrowia_lipolytica_27      -------------------KQVGDVSDAADLTVQA--------------------GDEVA
EFR3A_Rattus_norvegi_28     -------------------NFVSQMIAVPAFCQHV--------------------SKVIE
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Gallus_gallus_29              -------------------NFLSQMIAVPSFCQHV--------------------SKVIE
Kluyveromyces_lactis_30       -------------------VDHSDQNGTDIDQDTV------------------------
Ornithorhynchus_anat_31       -------------------NFLSQMIAVPAFCQHV--------------------SKVIE
EFR3A_Oryctolagus_cu_32       -------------------NFVSQMIAVPAFCQHV--------------------SKVIE
Nasonia_vitripennis_33        -------------------VLIANVCNISTLIDYA--------------------NKIVE
Candida_glabrata_34           -------------------NQISN-------------------------------SDLLN
Ixodes_scapularis_35          -------------------FLAAQLTSIPSLNAHV--------------------NEVLK
Daphnia_pulex_36              -------------------NLASHTMNVATLIEYS--------------------AQVVA
Tribolium_castaneum_37        -------------------VLIPSVVTIPPLLEYA--------------------NQIVE
Anopheles_gambiae_38          -------------------ILLGRCTGVGPLVEYV--------------------EKLIQ
EFR3B_Ciona_intestin_39       -------------------LILAHVSAVPEFQHYV--------------------NQVIH
Tetraodon_nigrovirid_40       -------------------NFLSQM-----------------------------VIE
Solenopsis_invicta_41         -------------------VLISYVCNITALMDYATKVGSLKFYDVLLKIKCAMNTKVIE

Cryptococcus_neoform_0        DRWGIVEIDDLANKALAS--------------LPEPYLIP-----PYPVPD--------S
Drosophila_melanogas_1        ARR-----------------------------EEASHFLP------PLLEP--------K
EFR3A_Equus_caballus_2        IRT-----------------------------MEAPYFLP-----EHIFRD--------K
Neurospora_crassa_3           MRD-----------------------------LESEALLP--FDERASLVDCICTGYQEL
Debaryomyces_hanseni_4        YRK-----------------------------LNKLWVNGLQSKEEDAVLD--------N
Saccharomyces_cerevi_5        SNG-----------------------------KAVYDNN-----DFAAKQ--------N
Ustilago_maydis_6             KLGETFDTDSVSRAAQGVLSQIPSLGIEPGPSPVGGLTLP-----------SEVVPFSAV
Ascaris_suum_7                ERA-----------------------------VRGHLSL------NLMAEG--------N
Harpegnathos_saltato_8        ARR-----------------------------NDSPHLLP-----DLQSQY--------D
Monodelphis_domestic_9        IRT-----------------------------MEAPYFLP-----EHIFRD--------K
Ailuropoda_melanoleu_10       IRT-----------------------------MEAPYFLP-----EHIFRD--------K
Ashbya_gossypii_11            TPP-----------------------------EGELQIP--------------------D
Nematostella_vectens_12       MFK------------------------------------------------------
Acyrthosiphon_pisum_13        QRKL----------------------------LSATHLLP-----ELSVHN---------
Culex_quinquefasciat_14       ARM-----------------------------EEATYLLP-----PLLDNE--------K
Aedes_aegypti_15              SRT-----------------------------EDAPYLLP-----PLLDNE--------K
Camponotus_floridanu_16       ARR-----------------------------KDSPHLLP-----DLQSQY--------D
Caenorhabditis_elega_17       CRAQ----------------------------RGIPGLNLLLNVKDSPNND--------D
EFR3B_Homo_sapiens_18         TRK-----------------------------KEAPYMLP-----EDVFVE--------R
EFR3A_Homo_sapiens_19         IRT-----------------------------MEAPYFLP-----EHIFRD--------K
EFR3B_Ailuropoda_mel_20       TRK-----------------------------KEAPYMLP-----EDVFVE--------R
Schizosaccharomyces__21       SLS-----------------------------SSLPSSLLNRGSSTHSWEK---------
EFR3A_Xenopus_laevis_22       TRN-----------------------------MDATYFLP-----EVIFRD--------K
EFR3A_Taeniopygia_gu_23       TRS-----------------------------VEAAYFLP-----ETIFKD--------K
EFR3B_Danio_rerio_24          MRQ-----------------------------KEIPYLLP-----EDVFIE--------N
Anopheles_darlingi_25         ARR-----------------------------EEASYLLP-----PLMDND--------K
EFR3B_Mus_musculus_26         TRK-----------------------------KEAPYMLP-----EDVFVE--------K
Yarrowia_lipolytica_27        LRK-------------------------------KLGLWP------------------N
EFR3A_Rattus_norvegi_28       TRT-----------------------------MEAPYFLP-----EHIFRD--------K
Gallus_gallus_29              TRS-----------------------------LEASYFLP-----ETIFKD--------K
Kluyveromyces_lactis_30       --R-----------------------------YSTPIPLP-----QISIPP--------T
Ornithorhynchus_anat_31       TRT-----------------------------EEAPYFLP-----EHIFKD--------K
EFR3A_Oryctolagus_cu_32       IRT-----------------------------MEAPYFLP-----EHIFRD--------K
Nasonia_vitripennis_33        SRS-----------------------------KEATHLLP-----DLRSQY--------D
Candida_glabrata_34           DRP---------------------------------LSP-------VFSS--------K
Ixodes_scapularis_35          VRR-----------------------------ERAPHLLP--------------------Q
Daphnia_pulex_36              ART-----------------------------AKAPLLLR--------FNE--------G
Tribolium_castaneum_37        ART-----------------------------QEAPHLLP------DLMVH--------Y
Anopheles_gambiae_38          ARK-----------------------------EEASYLLP-----PLMDND--------K
EFR3B_Ciona_intestin_39       ARE-----------------------------KFALQFLP-----KNALDS--------H
Tetraodon_nigrovirid_40       LRS-----------------------------MRAPYLLP-----EHIFRD--------K
Solenopsis_invicta_41         ERR-----------------------------NDSPHLLP-----DLQSQY--------D

Cryptococcus_neoform_0        PP---VFLSLPEEP------------VSFIQHTLEGESSS-TAKPLLDQDTLLDALVKSQ
Drosophila_melanogas_1        KL---AGKTFNLQLPH----------LAIDKLALGECLQN-AGMD-AQRLNTGAPY----
EFR3A_Equus_caballus_2        CM---LPKSLEKHDKN----------LYFLTNKIAESLGG-SGYS-VERLSV--PY----
Neurospora_crassa_3           AT---SPPTSPTTSPG----------RNFTHPMLGSTLSA-TPKD-ETQREV--------
Debaryomyces_hanseni_4        HH--ALGHRDENGTLR----------FNPTKKNLEDFVIG-NAFT-LSWINPHRPLILDI
Saccharomyces_cerevi_5        KFDNSIDDNIEEANDT----------VISDANAKGSIYRF-VAED-ARSWKTMRAT----
Ustilago_maydis_6             GSINQLGESSSSSSPS------------LNGALVINSLASSSKLQSATQLDAATLKRWLE
Ascaris_suum_7                AMGTYNGATSNEEEEHAAVGLEEDASLLFDKNDVAEMLKA-SGKD-VQRFAI--PF----
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Harpegnathos_saltato_8        AA---LTSRLAPA-------------LLVDQTVVSECLKG-AGLD-SGKLQQGSGY----
Monodelphis_domestic_9        CM---LPKSLEKHEKN----------LYFLTNKIAESLGG-SGYN-VEKLTV--PY----
Ailuropoda_melanoleu_10       CM---LPKSLEKHDKN----------LYFLTNKIAESLGG-SGYS-VERLSV--PY----
Ashbya_gossypii_11            IP---LPPTPPTPQQH----------RMFLNSD--------ASVKSLDKMK---------
Nematostella_vectens_12       ------KAGCDYKGIR----------VAYEHQELSGVLAR-T------------------
Acyrthosiphon_pisum_13        -----EVKSSSLLPAG----------VLIEEPELTEALKA-SGID-ITTETG--PV----
Culex_quinquefasciat_14       SA----PSTLNTNLPH----------LMVDKLAIAECLQQ-AGLE-HSRVQTGTPY----
Aedes_aegypti_15              PA----PSTLNTNQPH----------LMIDKLAVAECLQQ-AGLE-HNRVQTGTPYSLNQ
Camponotus_floridanu_16       AA---LTSRLTPA-------------VLVDQTVVSECLKG-VGLD-SGKLQQGSGY----
Caenorhabditis_elega_17       PL---SSSALNSTSQGATTITEEDQTLLFNAEDIAESLKA-SGKD-ATRLFV--PFNFNM
EFR3B_Homo_sapiens_18         PR---LSQNLDGVVIE----------LLFRQSKISEVLGG-SGYN-SDRLCL--PY----
EFR3A_Homo_sapiens_19         CM---LPKSLEKHEKD----------LYFLTNKIAESLGG-SGYS-VERLSV--PY----
EFR3B_Ailuropoda_mel_20       PR---LSQNLDGVVMD----------FLFRQSKISEVLGG-SGYN-SDRLCL--PY----
Schizosaccharomyces__21       -----LTNASTEEV------------MLPLDMVVNELLEK-SPKVFPEDSRL--LF----
EFR3A_Xenopus_laevis_22       CS---LPKSLDKHEKN----------QIFLTNKIAESLGG-SGYN-VEKLSM--PY----
EFR3A_Taeniopygia_gu_23       VN---LPKSLEKDETD----------LFFLTNKIAESLGG-SGYN-VERLSV--PY----
EFR3B_Danio_rerio_24          PK---IPKTLEKLEGD----------VLFQQAKITEVLGG-SGYN-TERLAT--PY----
Anopheles_darlingi_25         SA----PSTLNTNLPH----------LLIDKLAAAECLQQ-AGLE-SNRVQTGTLY----
EFR3B_Mus_musculus_26         PR---LSQNLDGVVIE----------FLFRQSKISEVLGG-SGYN-SDRLCL--PY----
Yarrowia_lipolytica_27        YLDWPVSSSSRIQDAD----------AQIDTSMVAKMKTL-SRSE-VEGLFA--EY----
EFR3A_Rattus_norvegi_28       CM---LPKSLEKHDKN----------LYFLTNKIAESLGG-SGYS-VERLSV--PY----
Gallus_gallus_29              CN---LPKSLEKHEKN----------LFFLTNKIAESLGG-SGYS-VERLSV--PY----
Kluyveromyces_lactis_30       TT---NGIGIKKSSPA-------------NDTYVTRSLKH----N---------P-----
Ornithorhynchus_anat_31       CL---LPKSLEKHEKK----------LFFLTNKIAESLGG-SGYS-VEKLSV--PY----
EFR3A_Oryctolagus_cu_32       CM---LPKSLEKHEKN----------LYFLTNKIAESLGG-SGYS-VERLSV--PY----
Nasonia_vitripennis_33        PH---LPSRIPTA-------------LIVDQTIVTECLKG-VGLE-TGKLQQGSGY----
Candida_glabrata_34           PL----SSPMGLISPQ-----------AQTNTQLNQPMRF-VSDD-VHSWKVSRPS----
Ixodes_scapularis_35          PG---RPASPSGTVPEA----------ALFDRAAVGEALRS-TGHD-TSKLFTQMLY----
Daphnia_pulex_36              SA---EEFPQDGIPPE----------CLLDFNTIADCMKE-AGKDIMGMIPLQGPF----
Tribolium_castaneum_37        PQ----DSEVANKVPH----------LLVDQMAVCENLKS-GGID-PSRLAQTSPYGAGG
Anopheles_gambiae_38          SA----PSTLNTNLPH----------LLVDKLAVAECLQQ-AGLE-CNRVQTGTPY----
EFR3B_Ciona_intestin_39       VN--HKPQKLSPENAEK---------VYFNSSEIYNALKGRSGYN-IEKLTR--PF----
Tetraodon_nigrovirid_40       CAVSPLPDSLEKDDQL----------LLFQSTDMAECLAG-PGYN-VEKLSI--PY----
Solenopsis_invicta_41         TG---LTSRLAPA-------------LLVDQTVVSECLKG-AGLD-SGKLQQGSGY----

Cryptococcus_neoform_0        TVQAAKQMDEAGLKRLFDGKWSVEQAIKDSMERFSSANLRPDDDSHYNAASALL----MS
Drosophila_melanogas_1        ----SLNQT-----DHPGHRHSWVESVSNQL---------TQRNSSADLTVYNG--D-VD
EFR3A_Equus_caballus_2        ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
Neurospora_crassa_3           ----PAQFRELMLGDWTREAVLANTQAGSSQTASLNGTNGTHRNTVNNNNRLGV--NGVT
Debaryomyces_hanseni_4        VNNYIPKKE-----------------NNQNVLSDM-----SDESSIIENSSYHT-----S
Saccharomyces_cerevi_5        ----APKVSDLKKTMNEKNIPNNMKRDGSFRGSQ------SVKSRVTNITFLLN--E-LK
Ustilago_maydis_6             RDWNVGIAVDEAFAGSSPYAHSSLGTGSQQA---------SRRPSYTPINGLSAGGNAFV
Ascaris_suum_7                ----VTKGNLLAVGDGSQNDGGSSRAATDKTDNFSGMAN-GAAQSILDESALSI--D--M
Harpegnathos_saltato_8        -------------------------SNNSLQHRHSWVDNAGRNSLADINSGGT--E-LD
Monodelphis_domestic_9        ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
Ailuropoda_melanoleu_10       ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
Ashbya_gossypii_11            ----SPKVS-----------------DLKRA---------ARGIRVAPSHS-----SLRA
Nematostella_vectens_12       ------------------------------------SSPESIVSSVSNEL--D---
Acyrthosiphon_pisum_13        ----LAHRRSWV--------------ENTNM---------SMKGSFTDLSNLDL--D---
Culex_quinquefasciat_14       ----SLHQT--------DMSAHRHSWVDTSS---------AARNSIVDANYN----D-IE
Aedes_aegypti_15              TDMSAHRHS-----------------WVDTS---------APRNSIVDANY-----D-AE
Camponotus_floridanu_16       -------------------------SSNSLQHRHSWVDSAGRNSLADINSGGQ--E-LD
Caenorhabditis_elega_17       ----NGRKNDGSGDQWQNDTPNFDSTDGRES---------PSGYKTVGIDDVSV--D--M
EFR3B_Homo_sapiens_18         ----IPQLT-----------------DEDRL---------SKRRSIGETISLQV--E-VE
EFR3A_Homo_sapiens_19         ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
EFR3B_Ailuropoda_mel_20       ----IPQLT-----------------DEDRL---------SKRKSIGETISLQV--E-VE
Schizosaccharomyces__21       ----AEQSR-----------------HPKYTDIIQKLKKPSREKSFTSSSEYSL--PFIS
EFR3A_Xenopus_laevis_22       ----VPQVT-----------------DEDRL---------SRRKSIVDTISIQV--D-IL
EFR3A_Taeniopygia_gu_23       ----VPQVT-----------------DEDRL---------SRRKSIVDTVSLQV--D-IL
EFR3B_Danio_rerio_24          ----VPQFT-----------------DEDRL---------SKRKSIGETISLQV--E-VD
Anopheles_darlingi_25         ----ALNQT--------DISAHRHSWVDTHS---------TVRNSVVDSSYNEI--E---
EFR3B_Mus_musculus_26         ----IPQLT-----------------DEDRL---------SKRKSIGETISLQV--E-VE
Yarrowia_lipolytica_27        ----VTSMP-----------------QE------------TRAELFSDYDDVMT----IH
EFR3A_Rattus_norvegi_28       ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
Gallus_gallus_29              ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
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Kluyveromyces_lactis_30       ----VPNVK-----------------DLKNLV--------SSKKDKSNTKTLRG------
Ornithorhynchus_anat_31       ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
EFR3A_Oryctolagus_cu_32       ----VPQVT-----------------DEDRL---------SRRKSIVDTVSIQV--D-IL
Nasonia_vitripennis_33        -------------------------SSSALQHRHSWVDSAGRSSLGDINGGTT--E-LD
Candida_glabrata_34           ----IPKVSDLKKAMKNGSSTKNKPLRGSQ----------SVKSRVTNITFLLS--E--L
Ixodes_scapularis_35          ----LARPS----APSPGVPSDWAQCAGEP----------TVTRSVSDLNSNNV--E-VA
Daphnia_pulex_36              ----NANQR--------------YSWADSSL---------HQPSSFTDLSNLNL--DGSE
Tribolium_castaneum_37        PGVVIGGQR-----------------NSWIE---------TARGSVIDINAPPE----VD
Anopheles_gambiae_38          ----ALNQT--------DISAHRHSWVDTHS---------AVRNSVVDASYNDI--E---
EFR3B_Ciona_intestin_39       ----QANLQ-----------------MDTLS---------SDAQRSIDVESINI--EFSV
Tetraodon_nigrovirid_40       ----VPQVTVLYTVGKILHRCKQTSRDEDRL---------TRRKSFVDTVSLQV--D-IM
Solenopsis_invicta_41         -------------------------SGNSLQHRHSWVD-AGRNSLADINSGGA--E-LD

Cryptococcus_neoform_0        MNNASYQSVNGQ--------------------------RLSRTI---------------D
Drosophila_melanogas_1        SVSSSPGVCKKL--------------------------LAPEF---------------N
EFR3A_Equus_caballus_2        PNSVPSDDVVS---------------------------NTEEI---------------T
Neurospora_crassa_3           SPNGSNSNLRPSSSPTGPNGVQAGRTRKTSIRSNGGGGSPAHSTYRAKAQQPVT-----S
Debaryomyces_hanseni_4        ARQNGFGLGLG---------------------------NANDI----------------
Saccharomyces_cerevi_5        TFSDDANKIKDP--------------------------DEENIV---------------G
Ustilago_maydis_6             NGSNASSASVN---------------------------KNSRI---------------S
Ascaris_suum_7                SIDWSPPESRLA--------------------------SRRNTFFAVSRDRDNVLALPLT
Harpegnathos_saltato_8        SGGSSPGVQKKL--------------------------PGEEL---------------T
Monodelphis_domestic_9        PGSNPIDNMVST--------------------------TTEEI---------------T
Ailuropoda_melanoleu_10       PNSIPSDDVVS---------------------------NTEEI---------------T
Ashbya_gossypii_11            SQSVKSRVTNIT--------------------------FLLNEL---------------N
Nematostella_vectens_12       -GQPSSGGTRPS--------------------------TPMEHI---------------T
Acyrthosiphon_pisum_13        SVNSTPAMQRRF--------------------------SPNEDL---------------S
Culex_quinquefasciat_14       SVSSSPGVQKRS--------------------------LASEF---------------N
Aedes_aegypti_15              SVSSSPGVQKRS--------------------------LPVDF---------------N
Camponotus_floridanu_16       SGGSSPSVQKKL--------------------------PGEEL---------------T
Caenorhabditis_elega_17       SVDWTPPVSRKQ--------------------------SRRNTIFSIVNPPKLNAS---T
EFR3B_Homo_sapiens_18         SRNSPEKEERV---------------------------PAEEI---------------T
EFR3A_Homo_sapiens_19         SNNVPSDDVVS---------------------------NTEEI---------------T
EFR3B_Ailuropoda_mel_20       SRNSPEKEERV---------------------------PAEEI---------------T
Schizosaccharomyces__21       PASDYQQNPLLH--------------------------ATKSLVSI------------H
EFR3A_Xenopus_laevis_22       SGSNTEDKV----------------------------NTEEI---------------T
EFR3A_Taeniopygia_gu_23       SGNNTEDKVD---------------------------NTEEI---------------T
EFR3B_Danio_rerio_24          SRNSPEKEERT--------------------------PAEEI---------------T
Anopheles_darlingi_25         SVSSSPGVQKRS--------------------------LASEY---------------N
EFR3B_Mus_musculus_26         SRNSPEKEERV---------------------------PAEEI---------------T
Yarrowia_lipolytica_27        SRQQVPDENLIVG-------------------------------------------------K
EFR3A_Rattus_norvegi_28       SNSVPSDDVVS---------------------------NTEEI---------------T
Gallus_gallus_29              PGNNTEDKID----------------------------NTEEI---------------T
Kluyveromyces_lactis_30       SQSVKSKVTNIT--------------------------FLLDEL---------------K
Ornithorhynchus_anat_31       PGNTADDTVS----------------------------STEEI---------------T
EFR3A_Oryctolagus_cu_32       PNSIPPDDVAN---------------------------NTEEI---------------T
Nasonia_vitripennis_33        SAGSSPGVQRKL--------------------------PGEEL---------------T
Candida_glabrata_34           RSTTAGDDSHII--------------------------DPDEEE--------------V
Ixodes_scapularis_35          SVNSSPGFVRKH--------------------------PEEEI---------------T
Daphnia_pulex_36              SNTSSPGVSRRY--------------------------AEEEV---------------T
Tribolium_castaneum_37        SVSSSPGVQRKM--------------------------VEEEL---------------T
Anopheles_gambiae_38          SVSSSPGVQKRS--------------------------LASEY---------------N
EFR3B_Ciona_intestin_39       DKQQSVVMEDGT--------------------------MSAENI--------------T
Tetraodon_nigrovirid_40       SSSLPDKSQ----------------------------LAEEI---------------T
Solenopsis_invicta_41         SGGSSPGVQKKL--------------------------PGEEL---------------T

Cryptococcus_neoform_0        VTDLRDALGGRVDTVSTSGAPSIASFDDSFHS--QSAPRSSL-------------QSRRM
Drosophila_melanogas_1        FDAMKRAL---AEP-----TEAAKREQRERQM--QIVR--TF-------------REGEF
EFR3A_Equus_caballus_2        FEALKKAI----DT-----SG-MEEQEKEKRR--LVIE--KF-------------QKAPF
Neurospora_crassa_3           VEQLKAVLSGHLQPPPTSHGINFQHSDDSDDS--LVSY--DMAPSELSFNPAASGSRQGS
Debaryomyces_hanseni_4        -SSIHSGLLFHQSQNVNMKNAFSNGNETSNGS--------IY-------------TSDRQ
Saccharomyces_cerevi_5        LDKIDVAR---SNS-----LRLAPISSLSDRS---SIG-----------------NRKSF
Ustilago_maydis_6             MQAPSTGV---ND---------LREALGTAAS--L--------------------SSKQA
Ascaris_suum_7                VEALRHMI---SAP-----VDAGEEERREQERTHEILE--KF-------------RNRPF
Harpegnathos_saltato_8        FESMKRIL---TEN-----NN-NHTVEEEKRI--QLSE--FF-------------RNAPF
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Monodelphis_domestic_9        FEALKKAI----DT-----NG-MEEQEKEKRR--LVIE--KF-------------QKAPF
Ailuropoda_melanoleu_10       FEALKKAI---VDT-----SG-MEEQEKEKRR--LVIE--KF-------------QKAPF
Ashbya_gossypii_11            NESQETGI---YDPEEEEVVG-LEKTDLARSISAKVSPAIAY-----------SSKRFGN
Nematostella_vectens_12       FQILKGII--------------SDRQHVNGTN--IESP--KF-------------AESSF
Acyrthosiphon_pisum_13        FEAMKRSL---LDN-----PV-VRVEQNTRQT--QLCD--MF-------------RNTSF
Culex_quinquefasciat_14       FESMKRVL---AEP-----TEASKREAREKQA--AIGR--TF-------------RETAF
Aedes_aegypti_15              FESMKRVL---AEP-----TEANKREAREKQA--AIGR--TF-------------RETAF
Camponotus_floridanu_16       FESMKRIL---TEN-----NN-NYIVEEEKRM--QLSQ--FF-------------RNAPF
Caenorhabditis_elega_17       VDDLKAYA---NAT-----FDPIEEGRKEKELTGSILS--EI-------------RNTDF
EFR3B_Homo_sapiens_18         YETLKKAI---VDS-----VA-VEEQERERRR--QVVE--KF-------------QKAPF
EFR3A_Homo_sapiens_19         FEALKKAI----DT-----SG-MEEQEKEKRR--LVIE--KF-------------QKAPF
EFR3B_Ailuropoda_mel_20       YETLKKAI---VDS-----VA-VEEQERERRR--QVVE--KF-------------QKAPF
Schizosaccharomyces__21       QQSQRGEM-----------VSTLKQALSRPHTASTVV------------------RSPSE
EFR3A_Xenopus_laevis_22       FESLKKAI----DN-----TG-MEEQEKEKRR--LVIE--KF-------------QKAPF
EFR3A_Taeniopygia_gu_23       FEALKKAI----DN-----SG-LEEQEKEKRR--LVIE--KF-------------QKAPF
EFR3B_Danio_rerio_24          FETLKNAI---VDS-----VG-VEEQEKERRR--QVVE--KF-------------QKAPF
Anopheles_darlingi_25         FESMKRVL---AEP-----TEATKREAREKQM--QIGR--AF-------------RETAF
EFR3B_Mus_musculus_26         YETLKKAI---VDS-----VA-VEEQERERQR--QVVE--KF-------------QKAPF
Yarrowia_lipolytica_27        ARSLKQLN-----------AG-------------SILE------------------RQTM
EFR3A_Rattus_norvegi_28       FEALKKAI----DT-----NG-MEEQEKEKRR--LVIE--KF-------------QKAPF
Gallus_gallus_29              FEALKKAI----DN-----NG-LEEQEKEKRR--LVIE--KF-------------QKAPF
Kluyveromyces_lactis_30       NDGDEIKI---ADPDEEDIIG-MEKQDLARSYSLRMNTISST-------------NSRTL
Ornithorhynchus_anat_31       FEALKKAI----DT-----NG-LEEQEKEKRR--LVIE--KF-------------QKAPF
EFR3A_Oryctolagus_cu_32       FEALKKAI----DT-----SG-MEEQEKEKRR--LVIE--KF-------------QKAPF
Nasonia_vitripennis_33        FDSMKRIL---TET-----NN-TQILEEEKRA--QLSQ--LF-------------RNAPF
Candida_glabrata_34           VGIDKMEI---ARS-----LS-----GRGRNS--VVVE--DV-----------STNRASF
Ixodes_scapularis_35          VESLKKLM---QEP-----PP-SQEAQEERRL--AVLD--RF-------------RHTPF
Daphnia_pulex_36              FEALKKVL---AEP-----AESRREAEYEKRQ--VICE--KF-------------RNTPF
Tribolium_castaneum_37        FESMKKVL---TES-----VEIRKEAEARRRK--QLSD--TF-------------RTATF
Anopheles_gambiae_38          FESMKRVL---AEP-----TEASKREAREKQM--QIGR--TF-------------RETAF
EFR3B_Ciona_intestin_39       YEYLKQVF---YKP-----PMSKEERLAKQKK---LAD--HI-------------RSAPF
Tetraodon_nigrovirid_40       FETLKKAI----DT-----TG-LEEQERERRR--QVME--KF-------------QKAPF
Solenopsis_invicta_41         FESMKRIL---TEN-----NN-NQVVEEEKRM--QLSQ--FF-------------RNAPF

Cryptococcus_neoform_0        NKDS----------DVKEILKDIFKDKK-----------------------KGTKAP---
Drosophila_melanogas_1        DDLMRRTEPKHD--LIQNRLNELFNSL-------------------------AVERQI---
EFR3A_Equus_caballus_2        EEIAAQCESKAN--LLHDRLAQILELTV-----------------------RPPPSP---
Neurospora_crassa_3           PGNTSQAASSPPRRTSQDRTQQLKF---------------------------GGPLVP---
Debaryomyces_hanseni_4        YNTPRVSDLKDS--VLMKKKPGV-------------------------------------
Saccharomyces_cerevi_5        LQKTATGENQND--DFKDANEDLHSL-----------------------------------
Ustilago_maydis_6             NGTTQDGSLSTDRRASRRES--------------------------------RRGP-----
Ascaris_suum_7                DELVEHVHNENEETDLSRTLHRLMQRS-----------------------------------
Harpegnathos_saltato_8        QDLVSKTQPKHD--VLQSKLSEIFNTL-------------------------SVDPRN---
Monodelphis_domestic_9        EEIAAQCETKAN--FLHDRLAQILELTI------------------------RPPPSP---
Ailuropoda_melanoleu_10       EEIAAQCESKAN--LLHDRLAQILELTI------------------------RPPPSP---
Ashbya_gossypii_11            LTSSLDLELQED--AFQDASGEIE--------------------------------------
Nematostella_vectens_12       NEIADIASYQLQ--EFNSKLDNVLEAAL------------------------IPLTTS---
Acyrthosiphon_pisum_13        QDLVAISTASKDEESLHSKITDVFNKV-----------------------------------
Culex_quinquefasciat_14       EDLVRRTEPKHD--VIQDKLNEIFNSLS---------------------TERQIGSCAGQ
Aedes_aegypti_15              EDLVRRTEPQHD--VLQNKLNEIFNSLS------------------------AERQIN---
Camponotus_floridanu_16       QDLVSKTQPKHD--VLQSKLSEIFNTL-------------------------SVEPRN---
Caenorhabditis_elega_17       EERVNTNESLNEKSDLSKSIARLLVR-------------------------------------
EFR3B_Homo_sapiens_18         EEIAAHCGARAS--LLQSKLNQIFEITI------------------------RPPPSP---
EFR3A_Homo_sapiens_19         EEIAAQCESKAN--LLHDRLAQILELTI------------------------RPPPSP---
EFR3B_Ailuropoda_mel_20       EEIAAHCGARAS--LLQSKLNQIFEITI------------------------RPPPSP---
Schizosaccharomyces__21       INLTRQTSNRVP--LLDMLNLNRA---------------------------------------
EFR3A_Xenopus_laevis_22       EEIAAQCESKAN--LLHDKLAQILELTI------------------------RPPPSP---
EFR3A_Taeniopygia_gu_23       EEIAAQCETKAN--LLHDRLAQILELTI------------------------RPPPSP---
EFR3B_Danio_rerio_24          EEIAAHCGARAT--MLQSKLNQIFEITI------------------------RPPPSP---
Anopheles_darlingi_25         EDLVRRTEPKHD--VIQNKLNEIFTALS---------------------AERQISCGIQ-
EFR3B_Mus_musculus_26         EEIAAHCGARAS--LLQSKLNQIFEITI------------------------RPPPSP---
Yarrowia_lipolytica_27        RDGWLGDDVKNN--KFAEERKGFTPT-------------------------------------
EFR3A_Rattus_norvegi_28       EEIAAQCESKAN--LLHDRLAQILELTI------------------------RPPPSP---
Gallus_gallus_29              EEIAAQCETKAN--LLHDRLAQILELTI------------------------RPPPSP---
Kluyveromyces_lactis_30       IPSVENAEEHGD--DFRDAHEDIE---------------------------------------
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Ornithorhynchus_anat_31       EEIAAQCESKAN--LLHDRLAQILELTI-----------------------RPPPSP---
EFR3A_Oryctolagus_cu_32       EEIAAQCESKAN--LLHDRLAQILELTI-----------------------RPPPSP---
Nasonia_vitripennis_33        HDLIKKTQPKHD--VLQSKLSEIFNAL-----------------------MIEPRS---
Candida_glabrata_34           VPATV---NEDD--EFRDAVEDVEAYS-----------------------------------
Ixodes_scapularis_35          AELLSCPSGPPQAMDLQNKLKEILG--------------------------KLPGT----
Daphnia_pulex_36              QQLVA-SSAKND--VLNDTLNQILT--------------------------RISIMP---
Tribolium_castaneum_37        SELVRRTQPKHD--VLQNKLNEIFKSL-----------------------------------
Anopheles_gambiae_38          EDLVRRTEPKHD--VIQNKLNEIFNALSAE---------------------RQISASCGV
EFR3B_Ciona_intestin_39       EQLLSEMQPDPVD-STQKLVSQLLE-------------------------------------
Tetraodon_nigrovirid_40       EELAAHCESKAN--LLHDRLARIFELTIRSGDPHRLAPEPPALANMCRPPRRPPPSP---
Solenopsis_invicta_41         QDLVSKTQPKHD--VLQSKLSEIFNTL-----------------------SVDPRN---

Cryptococcus_neoform_0        -------------KGIVVNRVKSASASE---------------EARTSTGDENGLGMSGM
Drosophila_melanogas_1        -------------TQSDTKSSQLQASNEK--------------PIYETNF----------
EFR3A_Equus_caballus_2        -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
Neurospora_crassa_3           -------------GEESVVNGAGGQEGSN--------------GAAGNLG-VPISRTTSR
Debaryomyces_hanseni_4        --------------------AFNEHYNSD--------------TTPGSIL----------
Saccharomyces_cerevi_5        ---------------------------------------------SSRGKIF----------
Ustilago_maydis_6             -----------------VVTSANGSNGTS--------------AVAILDSLKVGVDEDAS
Ascaris_suum_7                -------------NDTNRLNEYILREKPK--------------NIFELKM----------
Harpegnathos_saltato_8        -------------AVPTTGQQTDTKPSQT--------------PAYEIHF----------
Monodelphis_domestic_9        -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
Ailuropoda_melanoleu_10       -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
Ashbya_gossypii_11            --------------------------ASS--------------AFRGKLF----------
Nematostella_vectens_12       -------------ALSISTVSISSVPGD---------------DTFELKF----------
Acyrthosiphon_pisum_13        -------------DISNKLSAVETTNQPI--------------PIYETLF----------
Culex_quinquefasciat_14       LAKLEA-------SAVDGGGAGGKLNQQR--------------AVYENNF----------
Aedes_aegypti_15              -------------CGNQLMTAAGATVQR---------------PIYENNF----------
Camponotus_floridanu_16       -------------TVSTTGQQTDAKPSQT--------------PSYEIHF----------
Caenorhabditis_elega_17       -------------NGEMTRVRDIGRPAKPK-------------NLFEIEL----------
EFR3B_Homo_sapiens_18         -------------SGTITAAYGQPQNHSI--------------PVYEMKF----------
EFR3A_Homo_sapiens_19         -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
EFR3B_Ailuropoda_mel_20       -------------SGTITAAYGQPQNHSI--------------PVYEMKF----------
Schizosaccharomyces__21       --------------------------MSPT--------------PIQSPPY----------
EFR3A_Xenopus_laevis_22       -------------SGTLTMTAGHAQYQSV--------------PVYEMKF----------
EFR3A_Taeniopygia_gu_23       -------------SGTMTITAGHAHYHSV--------------PVYEMKF----------
EFR3B_Danio_rerio_24          -------------SGTITSSYGQTQSRSV--------------PVYEMKF----------
Anopheles_darlingi_25         -------------AGSLLGANGGLNGPLIDGGKQLGGVGGGQRPIYENNF----------
EFR3B_Mus_musculus_26         -------------SGTISAAYGQPQNHSI--------------PVYEMKF----------
Yarrowia_lipolytica_27        -------------VSDLKGAMGGNAYVSK-------------------EPIAQKFD----
EFR3A_Rattus_norvegi_28       -------------SGTLTVTSGHAQYQSV--------------PVYEMKF----------
Gallus_gallus_29              -------------SGTMTITAGHAHYQSV--------------PVYEMKF----------
Kluyveromyces_lactis_30       --------------------------VSS--------------STRGRLF----------
Ornithorhynchus_anat_31       -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
EFR3A_Oryctolagus_cu_32       -------------SGTLTITSGHAQYQSV--------------PVYEMKF----------
Nasonia_vitripennis_33        -------------QSIPGGTPSDAKPSQT--------------PAYEIHF----------
Candida_glabrata_34           ---------------------------------------------TSRGKIF----------
Ixodes_scapularis_35          -------------LATCGGSQGKLDAVSQ---------DLASAPVYEVNF----------
Daphnia_pulex_36              -------------CGQPELTAVQPNNQSM--------------PLYGNNF----------
Tribolium_castaneum_37        -------------SANDRRNPTEEKKIEK--------------PAYEQNF----------
Anopheles_gambiae_38          QAGSLLLAANGGLNGPSMIEPGKHHLAAG-----------GQRPIYENNF----------
EFR3B_Ciona_intestin_39       --------------------DEDLYVQDY--------------DLESMEY----------
Tetraodon_nigrovirid_40       -------------SGTVSLSAGHGQHQSV--------------PVYEMKF----------
Solenopsis_invicta_41         -------------TVPTTGPQTDTKPSQT--------------PAYEIHF----------

Cryptococcus_neoform_0        TQGDGATGHKVVTNPPLDL-----------------------------------------
Drosophila_melanogas_1        --------------PELFY-----------------------------------------
EFR3A_Equus_caballus_2        --------------PDLCV-----------------------------------------
Neurospora_crassa_3           TQPQATTAHTTLPRPSTSSKRSIKSRAGSRAGPMSSSWLGEKPPAMDLAALLKGIDSASI
Debaryomyces_hanseni_4        --------------SKQMV-----------------------------------------
Saccharomyces_cerevi_5        --------------SST-------------------------------------------
Ustilago_maydis_6             RLGRDTSWSAI---PAKGI-----------------------------------------
Ascaris_suum_7                --------------PASFV-----------------------------------------
Harpegnathos_saltato_8        --------------PELFV-----------------------------------------
Monodelphis_domestic_9        --------------PDLCV-----------------------------------------
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Ailuropoda_melanoleu_10      --------------PDLCV-----------------------------------------
Ashbya_gossypii_11           --------------SS------------------------------------------
Nematostella_vectens_12      --------------PQEYI-----------------------------------------
Acyrthosiphon_pisum_13       --------------PELFA-----------------------------------------
Culex_quinquefasciat_14      --------------PELFF-----------------------------------------
Aedes_aegypti_15             --------------PELFF-----------------------------------------
Camponotus_floridanu_16      --------------PELFV-----------------------------------------
Caenorhabditis_elega_17      --------------PS-FA-----------------------------------------
EFR3B_Homo_sapiens_18        --------------PDLCV-----------------------------------------
EFR3A_Homo_sapiens_19        --------------PDLCV-----------------------------------------
EFR3B_Ailuropoda_mel_20      --------------PDLCV-----------------------------------------
Schizosaccharomyces__21      --------------VRT-----------------------------------------
EFR3A_Xenopus_laevis_22      --------------PDLCV-----------------------------------------
EFR3A_Taeniopygia_gu_23      --------------PDLCV-----------------------------------------
EFR3B_Danio_rerio_24         --------------PDLCV-----------------------------------------
Anopheles_darlingi_25        --------------PELFF-----------------------------------------
EFR3B_Mus_musculus_26        --------------PDLCV-----------------------------------------
Yarrowia_lipolytica_27       --------------PQTFL-----------------------------------------
EFR3A_Rattus_norvegi_28      --------------PDLCV-----------------------------------------
Gallus_gallus_29             --------------PDLCV-----------------------------------------
Kluyveromyces_lactis_30      ----------------M-----------------------------------------
Ornithorhynchus_anat_31      --------------PDLCV-----------------------------------------
EFR3A_Oryctolagus_cu_32      --------------PDLCV-----------------------------------------
Nasonia_vitripennis_33       --------------PELFV-----------------------------------------
Candida_glabrata_34          --------------AN------------------------------------------
Ixodes_scapularis_35         --------------PELFV-----------------------------------------
Daphnia_pulex_36             --------------PDLFV-----------------------------------------
Tribolium_castaneum_37       --------------PELFF-----------------------------------------
Anopheles_gambiae_38         --------------PELFF-----------------------------------------
EFR3B_Ciona_intestin_39      --------------PSIYA-----------------------------------------
Tetraodon_nigrovirid_40      --------------PDLCV-----------------------------------------
Solenopsis_invicta_41        --------------PELFV-----------------------------------------

Cryptococcus_neoform_0       -------------SLGR-PVDVSSSS------------------
Drosophila_melanogas_1       -------------Y-------------------------------
EFR3A_Equus_caballus_2       -------------Y-------------------------------
Neurospora_crassa_3          SDIKSLGAGGKPPY------------------------------
Debaryomyces_hanseni_4       -------------TSD----------IDSILEGLDIDDDSEIIV
Saccharomyces_cerevi_5       ---------------------------------------------
Ustilago_maydis_6            -------------TNGTAPISPPYTS------------------
Ascaris_suum_7               -------------Y-------------------------------
Harpegnathos_saltato_8       -------------Y-------------------------------
Monodelphis_domestic_9       -------------Y-------------------------------
Ailuropoda_melanoleu_10      -------------Y-------------------------------
Ashbya_gossypii_11           ---------------------------------------------
Nematostella_vectens_12      -------------Y-------------------------------
Acyrthosiphon_pisum_13       -------------F-------------------------------
Culex_quinquefasciat_14      -------------Y-------------------------------
Aedes_aegypti_15             -------------Y-------------------------------
Camponotus_floridanu_16      -------------Y-------------------------------
Caenorhabditis_elega_17      -------------Y-------------------------------
EFR3B_Homo_sapiens_18        -------------Y-------------------------------
EFR3A_Homo_sapiens_19        -------------Y-------------------------------
EFR3B_Ailuropoda_mel_20      -------------Y-------------------------------
Schizosaccharomyces__21      ---------------------------------------------
EFR3A_Xenopus_laevis_22      -------------Y-------------------------------
EFR3A_Taeniopygia_gu_23      -------------Y-------------------------------
EFR3B_Danio_rerio_24         -------------Y-------------------------------
Anopheles_darlingi_25        -------------Y-------------------------------
EFR3B_Mus_musculus_26        -------------Y-------------------------------
Yarrowia_lipolytica_27       -------------NTWTVTDNLGGLTV------------------
EFR3A_Rattus_norvegi_28      -------------Y-------------------------------
Gallus_gallus_29             -------------Y-------------------------------
Kluyveromyces_lactis_30      -------------V-------------------------------
Ornithorhynchus_anat_31      -------------Y-------------------------------
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EFR3A_Oryctolagus_cu_32       -------------Y------------------------------
Nasonia_vitripennis_33        -------------Y------------------------------
Candida_glabrata_34           -------------Y------------------------------
Ixodes_scapularis_35          -------------F------------------------------
Daphnia_pulex_36              -------------Y------------------------------
Tribolium_castaneum_37        -------------Y------------------------------
Anopheles_gambiae_38          -------------Y------------------------------
EFR3B_Ciona_intestin_39       -------------Y------------------------------
Tetraodon_nigrovirid_40       -------------Y------------------------------
Solenopsis_invicta_41         -------------Y------------------------------
```

Figure S4. Multispecies protein sequence alignment of EFR3A/B for ConSurf analysis.