

Additional File 2: Zebra finch prohormone and signaling sequences. Predicted sequences of zebra finch prohormone and signaling genes in Fasta format. Sequence title information includes gene symbol, gene name, NCBI Entrez gene ID, Ensembl ID and Genbank predicted sequence number when available.

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>ADCYAP1 | Adenylate cyclase activating polypeptide 1 (pituitary) | 100225028 | ENSTGUP00000010475 |
XP_002193462.1
MCSKAILALLVYGIIMHCSVYCSPAAGLQYPALRLEDEVYDEDGNTLQDFAYDQEPLGIANPSSMIGEMYTLIYPPEKRHADGIFNKAYRKLLGQLSARKYLHSLMAKRVGGA
SGGLGDDAEPLTKRHIDGIFTDSYSRYRKQMAVKKYLA AVLKGKRYKQRVKNKGRRVAYL
>ADCYAP1_2 | Adenylate cyclase activating polypeptide 1 (pituitary), isoform 2 | 100225028 | ENSTGUP00000010475 |
XP_002193462.1
MCSKAILALLVYGIIMHCSVYCSPAAGLQYPALRLEDEVYDEDGNTLQDFAYDQEPLGIANPSSMIGEMYTLIYPPEKSGASGGLGDDAEPLTKRHIDGIFTDSYSRYRKQMA
VKKYLA AVLKGKRYKQRVKNKGRRVAYL
>ADM | Adrenomedullin | 100231562 | ENSTGUP00000008261 | XP_002197355.1
MKLLHVALLYLGSVTFFGVDAAARVDVATEFKRKWKWALSRAKRDVKPAGLLRGLGAAADVMPLIRTQDVKEDSRLSPSSNREDAHIRVKRYRQSINRFPHFQTKACRFGTCT
VHWLVDELHRAAVNDRNDAAPPNKISPQGYGRRRRSLPERRSPAHSPPSSGRRPRTRRALPLAAVLGV
>APLN | Apelin | na | na
>AVP | Arginine vasopressin | 100217635 | ENSTGUP00000011316 | XP_002190083.1
MAEPSLPLSFLCLLALSSACYIQNCPRGGKRALADAALRQCMPCGPNRGNCFGPGICCGSELGCYLGTAE TRRCAEEDFLPSPCQAGGQPCGAGGRCAAPGICCSAETCAMD
SACLDQGS DGAQEAAEEKNLTVLDGSAGDLLKLMHLANRQQQQGKHPLL
>FIGF | C-fos induced growth factor (vascular endothelial growth factor D) | 100227068 | ENSTGUP00000008337 |
XP_002197500.1
MYKPWATVNIFIISFLHLLQGSDYENGSVKRTSLSALERSEQQIRRASSLEELLHITHSEDWKLWKRLKLSLANLDSRSASHRSTRFAAAFYDIDTLKVIDEEWQKTQCV
RETCEVAKELGTTTNKFFKPPCVNVFRCGGCCNEESLSMNTSTTYVSKTLFEISVPLTSVPEPVPIKIANHTACKCTSNTQRHQYTIIRRSVQYPEEDGCPFTNKFCHNGW
IWDSDKCECVIDTQHSNRREGTPSSC
>CRF | C-RF amide peptide | 100226474 | na | XP_002199006.1
MWHLISWTPRAQWSPNHLKLVTVYVLMMLLVLSLFSASGQSRSFKHQIDNRSPEIDPFWYVGRGVRPIGRFGKRQLRSSHGSRLPVSRLHDFILNALWEQKSLD TDDSDW
>CNP1 | C-type natriuretic peptide 1 | 100226912 | na | XP_002197345.1
MLGLQSWPCSFFLVLVLSASVQTVSLPGQRLQMLLSRLPLEPKSTLTEEDTKEGSSFGPQLLSSALPFLPSGARAARPSLWRKNLSSRWGLPGDWAWKAMPRGCFGLKLD
RIGTFSGLCG
>CNP3 | C-type natriuretic peptide 3 | na | ENSTGUP00000016882
KLLFCPGFLLLLLIVSQNQAGARSISFQSLPKLLDEDELEHPLDSEEDWHEEDDLIPAGVFDQDTELPWIQTSREQPRSREQRSISLGD SAIQRFFSDLLSSARRQKQKGRS
KKGLSRGCFGVRLDRIGSLSGLCG
>CALCA | Calcitonin-related polypeptide alpha | 100228652 | ENSTGUP00000008761 | XP_002198249.1
MVMLKISSFLAVYALVVCQMSDFQAAPVRPGLESITDRVTLS EYEARRLLNALVKEFIQMTAEEMEQA SEGNSLDKPI SKRCASLSTCVLGKLSQELHKLQTYPRTDVGAGTP
GKKRSVLSDLEHERYANYGEPLGNN
>CALCA_2 | Calcitonin-related polypeptide alpha, isoform 2 | 100228652 | ENSTGUP00000008761 | XP_002198249.1
MVMLKISSFLAVYALVVCQMSDFQAAPVRPGLESITDRVTLS EYEARRLLNALVKEFIQMTAEEMEQA SEGNSVTAQKRACNTATCVTHRLADFLSRSGAVGKNNFVPTNVGS
KAFGRRRRSVQI
>CARTPT | CART prepropeptide | 100229332 | na | XP_002194988.1
MDPLFGPRAGTAGASGRRRLGRSGGGGAEPSRAVPCRAHTRGAAAVGADARRGGRGAIAAAAAVERQH HGELTGAGAVRRGRACCSLLADTERSRRASPPGRTLNTGPRGGP
SPPGGVSPSREKELVRRELGRAGAPPGRARGDGGSVVSLQIEAVQEVLEKLKSKRRPQYEKKLGQVPMCDAGEQCAVRKGARIGKLCDCPRGTSCNSFLLKCL
>CCK | Cholecystokinin | 100190220 | ENSTGUP00000004812 | XP_002199022.1
MYSGLCICVFLAVLSVSSLGQQTLGTLDGHPVPAELEQSLPEHQHSRAPSSAGPLKPLQRLDASSDQRANIGALLAKYLQQARKGSTGRFSVMGNRVQSIDPTHRINDRDM
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GWMDFGRRSAEEYEYSS

>CHGA | Chromogranin A (parathyroid secretory protein 1) | 100225869 | ENSTGUP00000012975 | XP_002200181.1
MSRPELLAVLLAVPAVSLPVTNDNMNKGDTKVMKCIVEVISDTLSKPNPLPISEECLETLRGDERIISILRHQNLKELQEIAAQGANEQTQQQKNSGFEDELSEVLESQNN
KNKQRDAAGEHPEEDQPTGSLAELAAQKPQONEDSREEGKSLEEREPRPWDTPNPEVEDDREEAESNDVRDTEDETHRSEVLHNHIGKNFSEDEQQQQGDEEEEPGRSRNSLELE
DEGEEPSRQGGQHSKEVAGERVEREDDGDEAAEEDPTEAERSLDLAEDEEAEEMQGGDNDELGFQKDVRSSEDEEEEEEEPRALRGGRHRQDEDEEMQEEEDTFHPKDA
KSDMEEESSREWEDTKRWNKMDLAKQLTSKKRREENDSEEDPDRSMKKTFRSRKYAFSSPEEDVRRSWKHHSKEDSGEGGLPLAPMPEKKDEEGSANRRTEDQELESIAA
IEAELERVAAHKLHELRRG

>CHGB | Chromogranin B (secretogranin 1) | 100230980 | ENSTGUP00000002261 | XP_002197054.1
MGPRALLALLAAAAAGERGAGTSRRERRGANSPPGSEQPREQQRGRDARARSGRGRWLREPQPGVGGDAGRELRGCSAFIFIPAQHPRTKTWRCRFLTAVLLGFCQPVLDAGR
WWQSASTVPVEKDHTTEEMVTRCIVEVLSNALSKPNAPPINPECKEILKSDKNDRESEKEQPEVRHPKDPAAETEKHPAGSVEKEQRQAEEESKKYMEGGDEEKLAREEGKSEE
EEAGHHTPAQDETTLHTEEEKHYQETGREEERNYHSEESKEGRCCEDVEAAVLTKKSHSEGMSMDEFRRGNDQSPRGHWHLEEGMQSHSKQIREGKAAGKLGHGSGAAEHSR
EDQQPQERLKLSCVLCFIKTKAPGSVQTLMREFQNGGQALLALLGVLWGAASSESREEQNKRHHQSQESSEERRQHDGAHPSEGRLYPADENQEQQLARYLGEEKQRRVGGRRAR
PRSREHQRSQAAEHKGQASRHHSTEDSLEEEQELVEKKHRSSDQVEDEEEERFAERSEYRGHLPAEKEKRTAAAYRPFYPLLWWSRHLDRKDSAGEQLPEGREEGRPALSE
KSLFPEYNDYEWWSKQIQSALKHRRSDKRNPGKTNRYDVERQYKKMDQLAQLLNRYRKSSELPLGLYSSGEELKKRPVAGNDRRLSQRPLTEEEEEKQLENLATMDLELQNI
EKINSLRRG

>C12orf39 | Chromosome 12 open reading frame 39 (Spexin) | na | ENSTGUP00000012483
MYRCERLFLHLVVLCCAQGLHKLPAASALALFLAASFIAFSWSAPQAHFQRRNWTQAMLYLKGAQGRRFIADSESQRKDIYDRVQLETRSHSTNPLSLSEAAALFLTSLQKAQE
VEEENSEYPGYL

>C2orf40 | Chromosome 2 open reading frame 40 | 100225694 | ENSTGUP00000010030 | XP_002194086.1
MPPPRPRGALPGASLLLLLFLLLPLLCAAPDVSRVNLKLMQKREASAAAVKPEVSVKETAAKEFLSSLRQRRLWDRSQPDVQQWYQQFLYLGFDEQKFEDDLSYWTNLG
RARNEYGGYQHHYDEDSPIGPRNPHTFRHGAGVNYDDY

>C2orf40_2 | Chromosome 2 open reading frame 40, isoform 2 | 100225694 | ENSTGUP00000010030 | XP_002194086.1
MPPPRPRGALPGASLLLLLFLLLPLLCAAPASAAAVKPEVSVKETAAKEFLSSLRQRRLWDRSQPDVQQWYQQFLYLGFDEQKFEDDLSYWTNLGRARNEYGGYQHHYD
EDSPIGPRNPHTFRHGAGVNYDDY

>CRHR1 | Corticotropin releasing hormone | 100190638 | ENSTGUP00000011624 | XP_002198840.1
MKIPLLVSTGILLVALLPCQECRALSKSPAPAPGALHQPDFFQQQQRQQQQQQQQQTLPVLLRMGEEYFLRLGNLHKRPVGSFSASSSSSTSHLQPEASASNFFRAAVQQLQQ
LPERSPGDGEDGEAEGEAVEREKRSEPPISLDLTFHLLREVLEMARAEQLAQQAHSNRKLMEIIGK

>EDN1 | Endothelin 1 | 100219314 | ENSTGUP00000005994 | XP_002187680.1
MDYCHMLVSLFLVLCPLGALLPAAPGAEADAAPPPATAHRRARRRSCSSSLMDEECVYFCHLDIIWINTPEKTVPYGLGGPSRPRRSLKDMVPEMLTEPSSRCRCANQKDKKCLNF
CQAGKDLWAQSTVEKTSWHRIKAGNCFGPKCMNQQLVDSKKMKRLEAIGNSIKASFSAKLKAELOKGRKLKHNRRANKRQSFRESLKAS

>EDN2 | Endothelin 2 | na | ENSTGUP00000000838
AAGLGHPPPESHAAARPRIKRCSCNSWLDKECIYFCHLDIIWVNTPGNTAPYGLGSPPRRRKRSAGRCECSHSRDSICATFCQGRPGYLQILKLPVSSGASARSLQSSATRPP
HHGLLRALRDLRVSSPRSGQRQQRSRRTDQPPALPWEKNIWKKKR

>EDN3 | Endothelin 3 | 100218153 | ENSTGUP00000008244 | XP_002195303.1
MELGLLFLFGLTITSTAGSALPRPRSALPAAGPGRHRERDESGAAAAAGGRARADGGALRHRARRCTCYTYKDEKCVYYCHLDIIWINTPERTVPYGLSNYRGSFRGKRSTGQT
QSAPQPSLRSCADAHDKQCLQFCRRMQDRRRNHGSMKKAEEKDQRREEEHNFVQ

>GAL | Galanin prepropeptide | 100229595 | ENSTGUP00000010282 | XP_002199594.1
MQRCTAFLLLPLILCATLSETLGLVFSAKDKRGWTLNSAGYLLGPHAVDNHRSFNDKHGFTGKREVPPDEDIKAGNLGRPLADENIVRTVIEFLTYLHLKEVGALDKLPTPEE
INQS

>GIP | Gastric inhibitory polypeptide | na | ENSTGUP00000014511
RRYSEAAALASDYSRTVEHVLGRNFVEWLLARRERDSxxA
LENSAGLREFLEREFLLTWLMSGELCRA

>GRP | Gastrin-releasing peptide | na | ENSTGUP00000017765
MRGGRPAALPLLALALLTAQGGAAPLQPGGTPALTKIYPRGSHWAVGHLMGKKSTGDFPYGFEEENKTPFSALPDNIKQLEEYLQWEEISKYLLTLLERNENKSGHFSKGGLP

WYTRNTWETDDNSSWKHMDYLLQVVMKESTPS
>GHRL | Ghrelin/obestatin prepropeptide | na | na
PTARLHEKGFKFFWGTLATEAK
>GCG | Glucagon | 100226588 | ENSTGUP00000014141 | XP_002197220.1
MKMKSIYFVAGLLLMIVQGSWQNPLQDTEEKSRSEFKASHSEPIEEPRQLNEVKRHSQGTFTSDYTKYLDTRRAQDFVQWLMSTKRNGQQAQEDKENNKVPDQLSSNAISKRHA
EFERHAEGTYTSDITSYLEGQAAKEFIAWLNVNGRGRDFPEKALLAEEMGRRHADGTFTSDINKVLDDMAAKEFLKWLINTKVTQRDLLEEYQ
>GCG_2 | Glucagon, isoform 2 | 100226588 | ENSTGUP00000014141 | XP_002197220.1
MKMKSIYFVAGLLLMIVQGSWQNPLQDTEEKSRSEFKASHSEPIEEPRQLNEVKRHSQGTFTSDYTKYLDTRRAQDFVQWLMSTKRNGQQAQEDKENNKVPDQLSSNAISKRHA
EFERHAEGTYTSDITSYLEGQAAKEFIAWLNVNGRGRRE
>CGA | Glycoprotein hormones, alpha polypeptide | 100227314 | ENSTGUP00000012836 | XP_002198312.1
MDCYGYAAVTLTILSVFLHLLHTFPDGEFLMQGCPECKLGENRFFSKPGAPIYQCTGCCFSRAYPTPMRSKKTMLVPKNITSEATCCVAKAFTKITLKDENVKIENHTDCHCS
TCYYHKS
>GNRH1 | Gonadotropin-releasing hormone 1 (luteinizing-releasing hormone) | 100216318 | ENSTGUP00000004488 |
XP_002197436.1
MEKPRRMVATALLCVLAVGLGLAQHWSYGLQPGGKRSTQLLLGPFGQEIANEMEKLEEEQQSACPGSHQNSRSGALREAMERLLEEQGRKKNV
>GH1 | Growth hormone 1 | 100218808 | ENSTGUP00000003400
MARGSWLSPLAIAVITLGLQWPQAAATFPAMPLSSLFANAVLRAQHLHLLAAETYKEFERSYIPEDQRHTNKNSSQVAYCYSETIPAPTGKEDAQQKSDMELLQFSLVLIQSWL
TPVQYLSKVFTNNLVFGTSDRVYEKLKDLLEEGIQALMRELEERSPRGPQVLKPTYEKFELHLRGEEALVKNYGLLSFCFKDLHXVETYLKVMRCRRYGEENCAL
>GH1A | Growth hormone 1 (duplicate on Chr1) | 100232594 | ENSTGUP00000013961
MAPGSWFPPLTIAMITLGLQWPQAAAAFAIPLSSLFNAVLRAQHLHLLAAETYKEFERTYIPEDQRHTNKNSSQVAFYCYSEAIPAPVKKDDAQQKSDIELLQFSLVLIQSWL
TPVQYLSKMFTNNLVFGTSDRVYEKLKDLLEEGIQALMRELQDRSFRGPQILKATYEKFEDIHLRSEDALLQNYGLLSFCFKDLHKVETYLKVMKRCRRYGEENCTI
>GHRH | Growth hormone releasing hormone | 100218168 | ENSTGUP00000005071 | XP_002190265.1
MQRHADAIFTDNYRKFLAQISARKFLQTIIGKRLGSSKSSPGEGVQEFLSRRQSDSILMDSQYQQQMVLRLDFLGAILQNRQPDIDSSGLEGFSTLAKLM
>HCRT | Hypocretin (orexin) neuropeptide precursor | 100225610 | ENSTGUP00000018297 | XP_002197774.1
MEVPNSKPRRAACLLLLLLCSLAAARHSLPHCCRQKTCPCRVYDLLHGMGNHAAGILTLGKRKSVPLTFQSRLYRLLHSGNHAAGILTMGKRGGQPGTVCHDSPGCPAGTG
AQPTAAPRGAAATSPDGPREGCQGHSGKDLSTGQAQGAARSFY
>INS | Insulin | 100231606 | ENSTGUP000000009610 | XP_002198969.1
MALWIRSLPLLALLAVSGPGSSHGAVNQHLGSHLVEALYLVCGERGGFFYPKARRDVEQPLVSGPLHGELGELPFQQQEEFETVTKRGIVEQCCHNTCSLYQLENYCN
>INSL5 | Insulin-like 5 | na | ENSTGUP00000010477
MRGTVLALGCLALLLLLARGGEGEGNKVRLCGRDFIRAVVFTCGSGRWRRHQDLRGSENPPQRFLEHEDDDADFSSHPPEPRLGTHREPLDVKPEQELQNSSKSVSLHKREAAEL
LATSCCNVGCSTRTEISSLC
>IGF1 | Insulin-like growth factor 1 (somatomedin C) | 100226283 | ENSTGUP00000011633 | XP_002199849.1
MEKINSLSLSTQLVKCCCLDFLKVMTVSYIHFFYLGLCLLTLTSSVAAGPETLCGAELVDALQFVCGDRGFYFSKPTGYGSSSRRLHHKGIVDECCFQSCDLRRLMYCAPIK
PPKSARSVRAQRHTDMPKAQKEVHLKNTSRGNTGNRNRYM
>IGF2 | Insulin-like growth factor 2 (somatomedin A) | 100144432 | ENSTGUP00000009618 | NP_001116438
MCAARRMLLLLLAFLAYAMDSAAAYGTAETLCGGELVDTLQFVCGDRGFYFSRPVGRNNRRFNRGIVECCFRSCDLALLETYCAKSVKSERDLSATSLAGLPALSKESFQKP
SHGKYSKYDVWQKSSQRRQRDAPNILRARRYRWQVEGLQAAEEAKALHRPLISLPSQRPPAARASPETAGPQK
>IAPP | Islet amyloid polypeptide | 100230121 | ENSTGUP00000012072 | XP_002197698.1
MCNVRLSVFFIALSVTLSCLEATPIESHQLEKRCNTATCVTQRLADFLVRSSSSSLGALYPPTNVGSNTYGKRDTAGLPSTQPQNRARL
>IAPP_2 | Islet amyloid polypeptide, isoform 2 | 100230121 | ENSTGUP00000012072 | XP_002197698.1
MCNVRLSVFFIALSVTLSCLEATPIERLLSVADDLSDGTSKRQGWMLPVMSQNSLSALREEMPEHPAAKTKSHQLEKRCNTATCVTQRLADFLVRSSSSSLGALYPPTNVGSN
TYGKRDTAGLPSTQPQNRARL
>MLN | Motilin | 100217914 | ENSTGUP00000001847

MVSRKVVASLLLLVSLLSVLAEQTQGFMPFFFTQSDFFQKMQEKERNKAGQKKSLSSSLQQLEEEGFSEQSGVDANAAKTLQQALPVRWLTPRQLEKYQDVLEKLLAEELLQDTPD
>NPPA | Natriuretic peptide precursor A | 100217781 | ENSTGUP00000016155 | XP_002191085.1
MDTKGSFFYGFLLLLLLIQLQSSRANPIYSLSPAKELASMEALLERLEDKFAMMEALESNPDLQEPKTQEEILSELADDSNQKAEPR LAPNTPLSYRDPFLKRLRGLQMPRMM
RDSGCFGRRIDRIGSLSGMGCNGSRRN
>NMB | Neuromedin B | 100222573 | ENSTGUP00000004989
MALRCLLLLLCGAALGPAVHLDFAEHRSQA AKIKVNPRGNLWATGHFMGKKSVTGSPHLETAEEPAVPMVFGPSLRALLEDMMELLTRELLKILLQERLLDENQGYDLTGQE
TGLLTKVLEKYFSS
>NMU | Neuromedin U | na | ENSTGUP00000007709
MGLHWHPPPPAAAPERSPRHGADGAALPGSPLLLLCLLLASSIPACRGAPMP SQALQSDIDLQLLKEIDDACSAYLSTDSQPQVSSTLEELCF LIMGFFQKPQDLDEKDNTKR
FLFHYSKTHDSGNSDVMSSVLHPLLQLVPHLNERRLKRYKLDEELQGPGGIQSRGYFFYRPRNGRRSVDFR
>NPS | Neuropeptide S | na | ENSTGUP00000011907
WQVPTAKVQITSKGKPEYFLVLLSSCLSKVGRGEELVLGKPLPESLFHKRSFRNGVGAGIKKTSFRRAK
>NPVF | Neuropeptide VF precursor (Gonadotropin-inhibitory hormone) | 100038821 | ENSTGUP00000002951 |
XP_002193656.1
MKVISNKKLILFALATVVFLTSNSMCLNEPMKSRLQSREDNDDKYEIKDNILEEKQRS LNLEEMEDWR SKDIIKMNPF AASKMPNSVANLPLRFGRNYPEERSIKPF SNLPL
RFGR AFGENIRNHAPKVSHRLERSPLVKGFSQSLNLPLQRF GKSLPVNLPRDVEEFEPGI
>NPW | Neuropeptide W | na | na
GEAVAGVPGAGHSPARSLPCAMARGQLSGGAWGALVLLGLMLPAAPAGAWYKHVASPRYHTVGRASGLLMGVRRSPYLWRRELPAEPLRYPGTSGGDSPPSPGQSPPAAGPAP
PPPGPGRLLQRLRRRGWG
>NPY | Neuropeptide Y | 100232180 | ENSTGUP00000002889 | XP_002193048.1
MTHRMQMQGTVRPWESVLT FALSMLVCLGT LAEAYPSKPDS PGEDAPAEDMARYYSALRHYINLITRQRYGKRSSPDTLISDLLLLRESTENIPRSRFEDPSMW
>NTS | Neurotensin | 100190409 | ENSTGUP00000008164 | XP_002196110.1
MRVQLVCVVLLALASCSLCS DSEEMKALEADLLTNMYTSKINRAKLPYWKMTLLNV CNLVNNINNQMGETVEVDEEDLVPGRQFPAALDGFSL EAMLT VYQLQKVCHSRAFQ
HWELLQQDALDLENSSQEKEIMKRKNPYILKRQLHVNKSRRPYILKRSSYY
>OSTN | Osteocrin | 100230749 | ENSTGUP00000009566 | XP_002190638.1
MLQFQLVVVHVALVIALLWWDSSSVLLAQAAPEPLEPSAALGVGDHP IASEEKPATNLAAKLFLLDDLVSL ENEVTTETKKKRSFP GFGSPIDRISSSSVDAKGKQRKV FELPK
RRFGVPLDRIGVSHLDNTRG
>OXT | Oxytocin, prepropeptide | 100220528 | ENSTGUP00000011315 | XP_002190044.1
MSCKALALCLLGLLALSSACYIQNCPIGGKRAVLDM DIRKCLPCGPRDKGR CFGPNICCGEELGCHIGTSDTLRCQEENFLPTPCESGHKACGSGGSCAAPGICCSTEGCGTD
SSCDQEMLFV
>PPY | Pancreatic polypeptide | na | na
MAPPLPLLLLLCAAALLPERPRAAPVHPA FPGPEAPAEELLRFYNDLQQYLN VVTRPR
>PTH | Parathyroid hormone | 100221585 | ENSTGUP00000016235 | XP_002187569.1
MTSIRNLAQAAIILCAMCF TTS DGRPMVRRSVSEMQLMHN LGHRHTVERQDWLQMKLQDVHSALEDARTQRPRSKDDVVLGRLLPEHPRAAGQKKSM DLDKAYMDVLFKT
KP
>PTHLH | Parathyroid hormone-like hormone | 100230763 | ENSTGUP00000013060 | XP_002198366.1
MFAKLFQQWSFAVFLLSYSVPSYGRSVEGISRRLKRAVSEHQLLHDKGKSIQDLRRRIFLQNLIEGVNTAEIRATSEVSPNPKPATNTKNYPVRFGSEDEGRYLTQETNKSQT
YKEQPLKVSGKKKKAKPGKRKEQEKKKRRTRSAWLN SGMYGDIVTESPLLDISVTTHNQTLRRR
>PDGFA | Platelet-derived growth factor alpha polypeptide | 100222155 | ENSTGUP00000008778 | XP_002191527.1
MSGCSRHLVPIRAGGTGAISR RGEEGGCEGKASCPRGRTGAGCGARDGLRGARAGCGVRLRLRRIGYDDVSETNLR SYSVHSAKHVQENRPVPIRRKRSIEEAIPAVCKTRT
VIYEIPRSQIDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQPSRIHRSVKLHF
>PDGFB | Platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog) |
100228287 | ENSTGUP00000010592 | XP_002195507.1

MTVQECIGGYEPAQRWCRHPSWSCLECALRVYESAPGDHSYPVFADHLSNACFSLSCLFVWVWQGDPIPEDIEILGGSSVRSISDLQRALQIDSVERDSSSSLSLNASQPDQNP
VALSRERRSLDALAAAEATAVLAECKTREVVFEISRNMVDSTNANFVWPPCVEVQRCSCCNRNVQCRPTQIRVRHVQVNKIEFVQQRKPKFTKVVVPLEDHVQCRCEVVFRP
PPRNIRPGPREQRRLSPALTTAAVSQRRRVRRPPAQKRKHKKYKHVNDKKVLKEILIA
>PDGFD | platelet derived growth factor D | 100221512 | ENSTGUP00000013067 | XP_002199932.1
MQLLLLLLLLYAVVCANFCSRQGTTPAQSGSIKALRASNIRDES NHLTDLYRKEETISVAGNGCIHSRPFSSYPRLNLLLTWRLHSPESTRIQLAFDNQFGLEEPENEICRY
DFVEVEDVSETSTVIRGRWCGHKEVPPRITSRTNHIKITFKSDDYFVAKPGFKICYSLVDDFQHAASETNWESVTSSVSGVSYSPSVTDFTLTAEALDQTIAAFDTVEDLLK
HFNPDSWQEDLENLYTDSGHHYRGRSYHDRKSKVDLDRNLNDDVKRYSCTPRNYSVNLREELKLTNVVFFPRCLLVQRCGNCGCGTPNWKSCCTCVSGKTVKKYHEVLKFIPEA
GHARRRGRIRNNMSLVDIQLDHHERCDCVCSSRPPR
>PNOC | Prepronociceptin | na | na
MRSVLWELLLLLLLWLCARAGDCRGECLSCRRLEGGGFDGLICLLECEGRAVPRATWELCAASSRPAPRRPRRIPSPV
>PMCH | Pro-melanin-concentrating hormone | 100223423 | ENSTGUP00000011636 | XP_002199866.1
MCISSYILILSLSLFSQGFLLSRSLQEAEDEDMLLAALNLGKILQNGDKSTSRGAIPLLKHXYKTEDSSVFNDKNAGNMKVLDGRSRHDFFSHVKPINLGRKQLPYPAKLGAM
AFPADTEFQNIESIEERETTDEENSSKFPIGRRDFDILRCMLGRVYRPCWQV
>PDYN | Prodynorphin | na | na
RDGDEEPTGAGAEPELAQLHKRYGGFLRRIRPKLKWDNQKRYGGFLRRQFKVTTRSDEDPSAYSSEVSDI
>PENK | Proenkephalin | 100190068 | ENSTGUP00000011453 | XP_002198192.1
MALLRLGCSLLALSACLLPRARADCGRDCAACAYRLGPRAGIHPLACTLECEGKLPSAKAWETCKELLQLTKLDLSEDGNIAPGDKKELDENHLLAKKYGGFMKRYGGFMKK
MDELYRAEPEDEANGGEMLAKEYGGFMKKDSDDDALANSSDLLKELLGTGDSPEAAHYREINENDGDVSKRYGGFMRSIKRSEPELEDEAKELQKRYGGFMRRVGRPEWWLDYQ
KRYGGFLKRFADSILPSEEDGETYSKEVPEMEKRYGGFMRF
>PROK2 | Prokineticin 2 | na | ENSTGUP00000010242
LLLLPAHLPSDITRACERDQCGRGMCCAVSLWIRSLRMCTPMGNLGDECHPLSHRVPFSGRRMHHTCPCLPGLACLRTPHSRFRCLPDFRKEDVFF
>PRL | Prolactin | na | ENSTGUP00000006544
MSTKGASLKGLLLAALLVSHMLLTKEGVTSLPICPNGSVNCQLSLEELFDRAVKLSHYIHFLSSEMFNEFDERYAQGRGFIKAVNSCHTASLTTPEDKEQAQQIHHEDLLNL
ILGVLRSWNDPLIHLASEVQRIKEAPETILWKAVEIEEQNKRLLEGMEKIVGRVHSGDVENDVYTPWDGLPSLQLADEDSRLFAFYNNLLHCLLRDSDHKIDNYLKVLCRLIHD
NNC
>PRLB | Prolactin B | na | ENSTGUP00000006179
AALALLWLLVCAPGDAGCHPLTVADLFDVRIRHSGRIHSLSTALYAELEKHFPSPRDNELGRPARKCHTSGMLTPNGKEYAQKIPREELTQVILKLLQAWKEPLSHFNQHIEHH
QELPDDSLSKAKQISNMVHELKTGVEKVTEKMQSMGIISNSLNGMASSEGTGLSISNEANMMSDSDFIHCFRRDSNKVQSYLKILKCRIMPENSC
>PRLH | Prolactin releasing hormone | na | na
MKLGVACLLWLLLVLFTLPASHGRVRERSMEIRNPIDIDPSWYTGRGIRPVGRFGRRQA
>POMC | Proopiomelanocortin | 100219426 | ENSTGUP00000017296
MCSLLLLPLLLLLLGPAPGGSERCRERPECRPLPIPACPGWCRAGISSESPLFPNGNQFQPLSESLRRYVMSHFRWNQFGRKNASEPGKREEFSGKNAGIPDFSRSFSEEAKDGK
RSYSMEHFRWGKPVGRKRRPVKVYPNGAESESENSRLEFRRGEASQEEDEDEEEEFPEFPWNSRKEKRYGGFMSSERIRTPLVTLFKNAIGKSFAKDQ
>QRFP | Pyroglutamylated RFamide peptide | 100222487 | na | XP_002195395.1(partial)
MRAPYSLSCLFLLSLGACIPPGERWEPAEPGEAALGGGWQRAAEGRGARRRRSEEELEALLSIARELRGYSAGAGQRPGGSGGPALPVVGEKRSGLGNLAEIINGYNRRK
GGFTFRFGR
>RLN3 | Relaxin 3 | 100225505 | ENSTGUP00000005181 | XP_002193109.1
MFPLSGAPLHQRVGTLGSTDGAPDSAQTASNKLLGSFNLQSVLDPEVEQLQRSSPFLGWETFKDLYSLNYYNEYVPVAGDLKKLVQRVVEEAVQKDRGGTGNNENPMESSSYLW
ARYPRRKRESLGLAGMCKWGCTKAEISTICRV
>SCT | Secretin | 100219077 | ENSTGUP00000007375 | XP_002196651.1
MVSMMTTLWQVIPIIVLSHFSASLPSQERMKRHADGLFHSELSKMNGNAYVQQILVKHLVGLKDRSLRHSDGLFTSEYSKMRGNAQVQKFIQNLGRKRSSPGPVNTDMQARE
GVNKPEELCFLWLYQSFLNTSHSDRDAREAAITSQYLCPFQKQIVADMKEDMDGSE
>SCG2 | Secretogranin II (chromogranin C) | 100219534 | ENSTGUP00000008135 | XP_002198010.1

MAETKTFQPGAACALTFFFVLICWVDAASFQQHQLLQKDPDYAMKNLQRLPNPDMIKALEYIEDLRKQTNKGESSPDYSSYQSVPYLLPQRESKDQLHLDPDNVWDSLTEDESQ
WVKVMLEALRQAEKESKAGPKENKPYGLSSDNNFPAGVTDDYEAYKWPERWQKYLKMPLGHYEDSSRDSPFKRTNEIVEEQYTPQSLATLESVFQELGKMAGPSNHKKERLDE
DQKLYTDDDEDDVYKVNNIAYEDVVGGEDWNPIEEKVESQTQEEIKDSKEEIDKHEEEIDEEMKRSGLSFLEDEIRRENKDQVSEDVSKLMNYLKRMLGSAGNRKRLRTGGEL
EEKRASMFLDKQLDPQAIQALIEISRNLIQIPPEDLIDMLKAGEKKQLQSERLEAEQEMEFPEDLDEITETNLGQSDIFKNNINSKNGYMKQPLIPENLPEDLNIEDIVSLLGN
DNLANQNPSYLLNRLNQNDLPRLSYIPRRLKGHLFPKAAWMNDLERRQTEYEKLENEKDEELADYLAKVLAKYPEVANTNQMKRAPAAASESKLQEEHLEQAIREHLNQLGP
QEAAKLASLSKRLSMAGEADDTQTRQYLDDEMLAKVLEYLQKEKSELERDHITKRAMENM
>SCG5 | Secretogranin V (7B2 protein) | 100228713 | ENSTGUP000000012091
MKVAATMITTLLCNMVFLLAFGLASAFSHSPRTPDRVTEADIQRL LHGVMEQLGIARPRVEYPAHQATNLVGPQSIEGGAHEGLQHLGPYGNIPNIVAEELTGDNVPKDFSEDQ
GYDPDPNPPCPIGKTVDDGCL EDTPTDAEFSREYQLHQNLFDPEHDYPNRGKWSKSLLEFEKINGGPKRRKRSVNPYLQGGQRLDNVVAKKSVPPQFSDEDDKGPK
>SST | Somatostatin | 100219295 | na
MLSCRLQCALALLSIALALGTVSAAPSDPRLRQFLQKSLAAAAGKQELAKYFLAEELLSEPSQTENEAESEDL SRGAEQDEVRL ELERSANSNPALAPRERKAGCKNFFWKTF
TSC
>SST2 | Somatostatin 2 | 100221267 | ENSTGUP000000017225 | XP_002186566.1
MQLVASIASVLLLLWSVRATALPGQEGQLSTREQSAARKDVILKMLAGLLGSVDVGAEVAFPAQGEKTRLEEDQAALGRLAQLSQRDRKAPCKNFFWKTF TSC
>TAC1 | Tachykinin, precursor 1 | 100227778 | ENSTGUP000000001703 | XP_002197434.1
MRLPLAFVLLLLASSQALGEEMGATDDLSYWSWDSDSDQAKEELPLPLEHFLQRMARRPRPQQFFGLMGKRDAGYGQISHKRHKTD SFVGLMGKRS LN SSGSEGSTAQNYERR
RK
>TAC1_2 | Tachykinin, precursor 1, isoform 2 | 100227778 | ENSTGUP000000001703 | XP_002197434.1
MRLPLAFVLLLLASSQALGEEMGATDDLSYWSWDSDSDQAKEELPLPLEHFLQRMARRPRPQQFFGLMGKRDAGYGQISHKRSSEGSTAQNYERRRK
>TSHB | Thyroid stimulating hormone beta | 100220136 | ENSTGUP000000000984 | XP_002197026.1
MSPFFVLSLLFGLIFGQTASLCAPSEYTIHVEKRECA YCLAINTTICAGFCMTRDSNGKKLLLLKSALSQNVCTYKEMLYRTALIPGCPHHTIPYYSYPVAVSCKCGKCNTDYS
DCVRERVRTNYCTKPQKLCNL
>TRH | Thyrotropin-releasing hormone | 100228179 | ENSTGUP000000010894 | XP_002189664.1
MSSIQLPLLLLLCLTSCGVCFNGGHLLPEESENMGKVPLDDTLQRSESLILQSVLKKAAKEEEEINKELNAPLLQRLSKRQHPGKEYLNNLKKRQHPGKRDVEEETFYGDIQKRQ
HPGKREMEDDL DVYLELKRQPPGIKSLLDQFAYS PRAQLTYMNELSKREHLGRRYLMFKHQHPSKRGWNYEVDVYGEKRQHPGKRHWNFDRSDDTGPCNFQESFTCHKGSL
LDLVEDVSRDRVEEKRQHPGKRS AWESETEE
>UCN | Urocortin | na | na
MRVRMISAASVVLVLLFLPSETCSPLQWPRGPSRRLTLAPQLTWE PWMGAPRPPVPATDPLPQRLCLFHGAELGPAPRARRALQTGRRRDGKPNSLDLTFHLLREFLEMSREER
LAQKALS NKLLLQSIGK
>UCN3 | Urocortin 3 | 100221165 | na | XP_002193953.1
MCSPQAPLATLRGRMLLSFLLLLGTPTRVWKGQSHKWLP PPPQAVDGGKLMRQDSTSPSKMLPDP SKVRSGDDGSGAGSHPDEASLSLLEGP ERQALPWLMS PATKRAAPRKN
GRKVSLSFDVH THLLKILLDLAREKELQAKAAA NAELMARLGRRR
>UTS2 | Urotensin 2 | 100222633 | ENSTGUP000000002613 | XP_002195510.1
MNKLILCCLIIVSFSCPLLSLPIINASEMSYQHS ADEDSRLNLERLGSTSLQLLPELLGTLTEDSRAGLT PSNYPNGENIKETFHGNHPRNAFLGRFLIKDRKQYKKRGNLS
ECFWKYCV
>UTS2D | Urotensin 2 domain containing | 100218300 | ENSTGUP000000009562 | XP_002190569.1
MWSAQQLCLGVL TILTMALCVPSTHGD PFLQGKLEYRLHDTENRVLPEREDTNHENTLLTLLL NKKFAWRRPESIDWELAKKFEELEEELEKLDQLSAEDGSEVAYALESLSA
SQPKKRACFWKYCI
>UTS2D_2 | Urotensin 2 domain containing, isoform 2 | 100218300 | ENSTGUP000000009562 | XP_002190569.1
MWSAQQLCLGVL TILTMALCVPSTHGD PFLQENRVLPEREDTNHENTLLTLLL NKKFAWRRPESIDWELAKKFEELEEELEKLDQLSAEDGSEVAYALESLSASQPKKRACFW
KYCI
>VEGFC | Vascular endothelial growth factor C | 100221203 | ENSTGUP000000006624 | XP_002189592.1
MHLLEVL SLSCLLAAGAVLLGPRQPAAAAAYESGQGYEEEPDAGEAKAHGSKELEEQLRSVSSVDELMTVLYPEYWKIFKCQLRRGGWQH NREHSSFDTRSDDSLKFAAAHY

NAEILKSIDTEWRKTQCTPREVCVDVGKEFGATTNTFFKPPCVSIYRCGGCCNSEGLQCMNISTNYISKTLFEITVPLSHGPKPVTVSFANHTSCRCMSKLDVYRQVHSIIRR
SLPAAQTQCHVANKTCPKNHIWNNQICRCLSQHEFGFSSHLGSDTPEGFHICGPNKELDEETCQCVCCKGGVRPSSCGPHKELDRTSCQCMCKNKLIPASCGPNKEFDEEKQCQ
CVCRKTCPRHQPLNPAKCVCECIESPNKCFLKGKRFHHQTCSCYRPPCTVTRTKRCDAGFYFSEEVCRRCVPTYWKRPLMN
>VIP | Vasoactive intestinal peptide | 100217965 | ENSTGUP00000011533 | XP_002187804.1
MSSASSILYTVSFSNRLGNRMPPFDGASEPDHARGSLKSESDILQNTLPENEKIFYFDLSRIIDRNARHADGIFTSVYSHLLAKLAVKRYLHSLIRKRVSSQDSPVKRHSDAVFT
DNYSRFRKQMAVKKYLNSVLTGKRSQEELNPAKLRDEAEHLEPSFSSENYDAVDELLSHLPLDL
>VIP_2 | Vasoactive intestinal peptide, isoform 2 | 100217965 | ENSTGUP00000011533 | XP_002187804.1
MEHRGASPLLLALALLSALCWRARALPPRGAAFPVPRLGNRMPPFDGASEPDHARGSLKSESDILQNTLPENEKIFYFDLSRIIDSSQDSPVKRHSDAVFTDNYSRFRKQMAVK
KYLNSVLTGKRSQEELNPAKLRDEAEHLEPSFSSENYDAVDELLSHLPLDL