

Table 1. Peptide families and phyla distribution

| Id | Family_name | NPro | NPep | Phyla distribution |
|----|--|------|------|---|
| | Cytokines and growth factors | | | |
| 1 | TGF_beta | 1213 | 619 | Annelida; Arthropoda; Chordata; Cnidaria; Echinodermata; Hemichordata; Mollusca; Nematoda; Platyhelminthes; Porifera; |
| 2 | Small_cytokines | 694 | 746 | Chordata; |
| 3 | Nerve_growth_factor | 612 | 389 | Chordata; Echinodermata; |
| 4 | HBGF_FGF | 455 | 315 | Arthropoda; Chordata; Echinodermata; Nematoda; |
| 5 | interferon_alpha_beta_delta | 450 | 435 | Chordata; |
| 6 | Platelet_derived_growth_factor | 256 | 200 | Arthropoda; Chordata; Cnidaria; Echinodermata; Nematoda; |
| 7 | Interleukin_1 | 250 | 176 | Chordata; |
| 8 | Receptivity_factor | 212 | 17 | Chordata; |
| 9 | Interferon_gamma | 159 | 159 | Chordata; |
| 10 | Interleukin_10 | 141 | 138 | Chordata; |
| 11 | Interleukin_4_13 | 122 | 122 | Chordata; |
| 12 | Interleukin_2 | 116 | 116 | Chordata; |
| 13 | Interleukin_6 | 107 | 80 | Chordata; |
| 14 | Heparin_binding_epidermal_growth_factor | 101 | 105 | Arthropoda; Chordata; Cnidaria; |
| 15 | Gremlin | 71 | 57 | Arthropoda; Chordata; Cnidaria; Nematoda; |
| 16 | GRANULINS | 70 | 40 | Arthropoda; Chordata; Cnidaria; Mollusca; Nematoda; Platyhelminthes; |
| 17 | Interleukin_15 | 67 | 67 | Chordata; |
| 18 | PTN_MK_heparin_binding | 60 | 56 | Arthropoda; Chordata; Mollusca; |
| 19 | Hepatoma_derived_growth_factor | 60 | 27 | Arthropoda; Chordata; Nematoda; |
| 20 | Interleukin_17 | 58 | 52 | Chordata; Nematoda; |
| 21 | Spatzle | 48 | 11 | Arthropoda; |
| 22 | Interleukin_12_alpha | 47 | 32 | Chordata; |
| 23 | Interleukin_16 | 42 | 7 | Arthropoda; Chordata; |
| 24 | Neuregulin | 41 | 19 | Chordata; |
| 25 | Osteopontin | 38 | 14 | Chordata; |
| 26 | Granulocyte_macrophage_colony_stimulating_factor | 34 | 34 | Chordata; |
| 27 | GMF_beta | 33 | 33 | Arthropoda; Chordata; Nematoda; |
| 28 | FAM3 | 33 | 13 | Chordata; |
| 29 | Interleukin_7_9 | 32 | 32 | Chordata; |
| 30 | LIF_OSM | 31 | 21 | Chordata; |
| 31 | Interleukin_5 | 27 | 27 | Chordata; |
| 32 | Interleukin_3 | 23 | 23 | Chordata; |
| 33 | Trefoil_factor | 22 | 21 | Chordata; |
| 34 | ARMET | 18 | 17 | Arthropoda; Chordata; Nematoda; |
| 35 | Interleukin_11 | 18 | 12 | Chordata; |
| 36 | uteroglobin | 13 | 13 | Chordata; |
| 37 | Interleukin_21 | 11 | 11 | Chordata; |
| 38 | Amphiregulin | 11 | 8 | Chordata; |
| 39 | Ciliary_neurotrophic_factor | 9 | 9 | Chordata; |
| 40 | Interleukin_28_29 | 9 | 9 | Chordata; |
| 41 | Stromal_cell_derived_growth_factor | 6 | 6 | Chordata; |
| 42 | Growth_factor_ARC | 5 | 5 | Chordata; |
| 43 | VEGF_co_regulated_chemokine_1 | 3 | 3 | Chordata; |
| 44 | Interleukin_31 | 3 | 3 | Chordata; |
| 45 | Neurosecretory_protein_VGF | 3 | 2 | Chordata; |

| | | | | |
|----|---------------------------------------|-----|-----|--|
| 46 | Thymic factor | 2 | 2 | Chordata; |
| 47 | Fibrosin | 2 | 2 | Chordata; |
| 48 | IL 27 p28 subunit | 2 | 2 | Chordata; |
| 49 | IL 6 subfamily like cytokine M17 | 2 | 1 | Chordata; |
| | Peptide Hormones | | | |
| 1 | Somatotropin | 957 | 666 | Chordata; Platyhelminthes; |
| 2 | Insulin | 732 | 997 | Arthropoda; Chordata; Cnidaria; Mollusca; Nematoda; |
| 3 | ACTH_domain_and_Opioids_neuropeptides | 561 | 824 | Annelida; Chordata; |
| 4 | Glycoprotein_hormones_beta_chain | 545 | 548 | Arthropoda; Chordata; Mollusca; Nematoda; |
| 5 | FMRFamide_and_related_neuropeptides | 261 | 431 | Annelida; Arthropoda; Chordata; Cnidaria; Mollusca; Nematoda; Platyhelminthes; |
| 6 | Glucagon_GIP_secretin_VIP | 247 | 408 | Arthropoda; Chordata; Cnidaria; Mollusca; Platyhelminthes; |
| 7 | Natriuretic peptides | 231 | 296 | Arthropoda; Chordata; |
| 8 | Gonadotropin releasing hormones | 209 | 369 | Chordata; Mollusca; |
| 9 | Arthropod CHH MIH GIH | 183 | 243 | Arthropoda; Nematoda; |
| 10 | ACBP | 165 | 120 | Arthropoda; Chordata; Cnidaria; Nematoda; Platyhelminthes; |
| 11 | Pancreatic_hormone | 145 | 195 | Arthropoda; Chordata; Mollusca; Platyhelminthes; |
| 12 | Agouti | 139 | 139 | Chordata; |
| 13 | Glycoprotein_hormones_alpha_chain | 133 | 137 | Arthropoda; Chordata; |
| 14 | Neurohypophysial_hormones | 131 | 211 | Annelida; Arthropoda; Chordata; Mollusca; |
| 15 | Tachykinin | 123 | 205 | Arthropoda; Chordata; Echiura; Mollusca; |
| 16 | Gastrin cholecystokinin | 114 | 242 | Arthropoda; Chordata; |
| 17 | Calcitonin CGRP IAPP | 106 | 112 | Arthropoda; Chordata; |
| 18 | Leptin | 105 | 106 | Chordata; |
| 19 | Corticotropin releasing factor | 97 | 104 | Arthropoda; Chordata; |
| 20 | Ghrelin and Motilin related peptide | 92 | 131 | Chordata; |
| 21 | Pyrokinins | 90 | 120 | Arthropoda; |
| 22 | Granins | 89 | 83 | Arthropoda; Chordata; |
| 23 | Bradykinin | 82 | 121 | Arthropoda; Chordata; |
| 24 | Somatostatin | 80 | 107 | Chordata; |
| 25 | Transthyretin | 67 | 66 | Arthropoda; Chordata; Cnidaria; Nematoda; |
| 26 | Hepcidin | 65 | 67 | Chordata; |
| 27 | Neuropeptide like protein | 64 | 189 | Arthropoda; Mollusca; Nematoda; |
| 28 | Allatostatin | 64 | 159 | Arthropoda; |
| 29 | Parathyroid hormone | 62 | 74 | Chordata; |
| 30 | Periviscerokinin | 61 | 67 | Arthropoda; |
| 31 | Endothelin | 61 | 65 | Chordata; |
| 32 | Adipokinetic | 55 | 81 | Arthropoda; |
| 33 | Bombesin | 55 | 72 | Chordata; |
| 34 | Erythropoietin thrombopoietin | 53 | 49 | Chordata; |
| 35 | Stanniocalcin | 53 | 26 | Chordata; |
| 36 | Prokineticin | 44 | 44 | Chordata; |
| 37 | Neurexophilin | 37 | 21 | Chordata; |
| 38 | Accessory gland specific peptide 26Aa | 36 | 4 | Arthropoda; |
| 39 | Pro_MCH | 35 | 64 | Chordata; |
| 40 | Galanin | 35 | 41 | Chordata; |
| 41 | Angiotensin_like_peptide | 34 | 55 | Annelida; Chordata; |
| 42 | Urotensin II | 33 | 39 | Chordata; |
| 43 | Thyroliberin | 32 | 36 | Chordata; |
| 44 | Neuroendocrine protein 7B2 | 32 | 20 | Arthropoda; Chordata; Mollusca; |

| | | | | |
|-----|--|----|----|---|
| | | | | Nematoda; Platyhelminthes; |
| 45 | Neuromedin_U_S | 31 | 39 | Chordata; |
| 46 | Resistin | 31 | 30 | Chordata; |
| 47 | Adrenomedullin | 29 | 39 | Chordata; |
| 48 | Cocaine_and_amphetamine_regulated_transcript_protein | 27 | 39 | Chordata; |
| 49 | Cerebellin | 27 | 30 | Chordata; |
| 50 | Guanylin | 27 | 29 | Chordata; |
| 51 | Pigment dispersing hormone | 25 | 35 | Arthropoda; |
| 52 | Accessory_gland_protein_62 | 25 | 25 | Arthropoda; |
| 53 | Egg_laying_hormone | 20 | 59 | Annelida; Mollusca; |
| 54 | Leucokinin | 19 | 21 | Arthropoda; Nematoda; |
| 55 | Wamide_neuropeptides | 18 | 49 | Arthropoda; Cnidaria; Mollusca; Nematoda; |
| 56 | GBP_PSP1_paralytic | 18 | 20 | Arthropoda; |
| 57 | Allatotropin | 18 | 16 | Arthropoda; |
| 58 | Nasal_embryonic_luteinizing_hormone_releasing_hormone_factor | 17 | 11 | Chordata; |
| 59 | Cardioactive_peptide | 16 | 16 | Arthropoda; |
| 60 | Nitrophorin | 16 | 12 | Arthropoda; |
| 61 | Neurotensin_neuromedin_N | 15 | 32 | Chordata; |
| 62 | Accessory_gland_specific_peptide_70A | 15 | 15 | Arthropoda; |
| 63 | Prothoracicotropic_hormone_precursor | 15 | 6 | Arthropoda; |
| 64 | Orexin | 14 | 19 | Chordata; |
| 65 | neuropeptide_B_W | 14 | 18 | Chordata; |
| 66 | Bursicon | 14 | 14 | Arthropoda; |
| 67 | Accessory_gland_protein_26Ab | 13 | 13 | Arthropoda; |
| 68 | Eclosion_hormone | 13 | 13 | Arthropoda; |
| 69 | Neuroendocrine_secretory_protein_55 | 11 | 16 | Chordata; |
| 70 | VD1_RPD2_alpha_peptide | 10 | 10 | Mollusca; |
| 71 | Corazonin | 9 | 13 | Arthropoda; |
| 72 | Tuberoinfundibular_peptide | 8 | 8 | Chordata; |
| 73 | Apelin | 7 | 19 | Chordata; |
| 74 | Orcokinin | 6 | 16 | Arthropoda; |
| 75 | Metastasis_suppressor_KiSS | 6 | 16 | Chordata; |
| 76 | Neuroparsin | 6 | 7 | Arthropoda; |
| 77 | Achatin | 6 | 6 | Mollusca; |
| 78 | Ecdysis_triggering_hormone | 5 | 7 | Arthropoda; |
| 79 | Insulin_growth_factor_like | 5 | 5 | Chordata; |
| 80 | Morphogenetic_neuropeptide | 5 | 5 | Chordata; Cnidaria; |
| 81 | Lymna_DF_amide | 5 | 5 | Mollusca; |
| 82 | Osteocrin | 5 | 5 | Chordata; |
| 83 | Accessory_gland_peptide_Acp33A | 5 | 5 | Arthropoda; |
| 84 | diuretic_hormone_class_II | 5 | 5 | Arthropoda; |
| 85 | ProSAAS | 4 | 28 | Chordata; |
| 86 | Short_neuropeptide_F | 4 | 9 | Arthropoda; |
| 87 | Small_cardioactive_peptide | 4 | 6 | Mollusca; |
| 88 | Neuropeptide_S | 4 | 4 | Chordata; |
| 89 | Proctolin | 4 | 4 | Arthropoda; |
| 90 | Hypotensin | 4 | 4 | Arthropoda; |
| 91 | WWamide | 4 | 3 | Mollusca; |
| 92 | Myomodulin | 3 | 13 | Mollusca; |
| 93 | Androgenic_gland_hormone | 3 | 6 | Arthropoda; |
| 94 | Antho_RIamide | 3 | 4 | Cnidaria; |
| 95 | Male_accessory_gland_protein | 3 | 3 | Arthropoda; |
| 96 | Pleurin | 3 | 3 | Mollusca; |
| 97 | Fulicin | 2 | 10 | Mollusca; |
| 98 | Abdominal_ganglion_neuropeptide | 2 | 6 | Mollusca; |
| 99 | Hym_preprohormone | 2 | 4 | Cnidaria; |
| 100 | Ovarian_ecdysteroidogenic_hormone | 2 | 3 | Arthropoda; |

| | | | | |
|-----|--|-----|-----|---|
| 101 | Contraction inhibiting peptide | 2 | 2 | Mollusca; |
| 102 | Antidiuretic factor | 2 | 2 | Arthropoda; |
| 103 | Putative neuropeptide | 2 | 2 | Mollusca; |
| 104 | Accessory gland protein 98 | 2 | 2 | Arthropoda; |
| 105 | Trypsin modulating oostatic factor | 2 | 2 | Arthropoda; |
| 106 | Light yellow cell peptide | 2 | 2 | Mollusca; |
| 107 | Peptide hormone | 2 | 2 | Arthropoda; |
| 108 | SPTR prohormone | 2 | 2 | Annelida; Mollusca; |
| 109 | Myoactive tetradecapeptide | 2 | 2 | Annelida; |
| 110 | Buccalin | 1 | 22 | Mollusca; |
| 111 | Neuroactive polyprotein R15 | 1 | 4 | Mollusca; |
| | Antimicrobial peptides | | | |
| 1 | antimicrobial_1 | 743 | 885 | Arthropoda; Chordata; Platyhelminthes; |
| 2 | Beta defensin | 468 | 468 | Arthropoda; Chordata; |
| 3 | Cecropin | 151 | 158 | Arthropoda; Chordata; Nematoda; |
| 4 | Arthropod defensins | 143 | 143 | Arthropoda; Mollusca; Nematoda; |
| 5 | Mammalian defensins | 133 | 156 | Chordata; |
| 6 | Cathelicidins | 96 | 106 | Arthropoda; Chordata; |
| 7 | Attacin | 73 | 44 | Arthropoda; |
| 8 | Bombinin | 59 | 126 | Chordata; |
| 9 | Penaeidin | 45 | 45 | Arthropoda; |
| 10 | Drosomycin like | 44 | 44 | Arthropoda; |
| 11 | pleurocidin | 31 | 31 | Chordata; |
| 12 | 4kD defensin | 27 | 27 | Arthropoda; |
| 13 | Termicin | 21 | 21 | Arthropoda; |
| 14 | Liver expressed antimicrobial | 20 | 20 | Chordata; |
| 15 | Moricin | 17 | 16 | Arthropoda; |
| 16 | Crustin like peptide | 14 | 11 | Arthropoda; |
| 17 | Ceratotoxin | 13 | 21 | Arthropoda; |
| 18 | grammistin | 13 | 13 | Chordata; |
| 19 | Gloverin | 12 | 12 | Arthropoda; |
| 20 | latarcin | 11 | 13 | Arthropoda; |
| 21 | Coleopteracin | 9 | 8 | Arthropoda; |
| 22 | Granulysin NK lysin like | 8 | 8 | Chordata; |
| 23 | Lebocin | 8 | 8 | Arthropoda; |
| 24 | Anti lipopolysaccharide factor | 8 | 8 | Arthropoda; |
| 25 | tachyplesin polyphemusin | 7 | 7 | Arthropoda; |
| 26 | Tryptophyllin | 7 | 7 | Chordata; |
| 27 | Electrin | 6 | 6 | Chordata; |
| 28 | Clavanin | 6 | 6 | Chordata; |
| 29 | Phylloseptin | 6 | 6 | Chordata; |
| 30 | Rubellidin | 6 | 6 | Chordata; |
| 31 | apidaecin | 5 | 11 | Arthropoda; |
| 32 | Pilosulin | 5 | 9 | Arthropoda; |
| 33 | Anionic peptide clone precursor | 5 | 5 | Arthropoda; |
| 34 | Putative antimicrobial peptide clone precursor | 5 | 5 | Arthropoda; |
| 35 | Poneracin | 5 | 5 | Arthropoda; |
| 36 | Gambicin | 5 | 5 | Arthropoda; |
| 37 | Styelin | 5 | 5 | Chordata; |
| 38 | Hyposin | 5 | 5 | Chordata; |
| 39 | Tachystatin | 5 | 5 | Arthropoda; |
| 40 | Metelnikowin | 4 | 4 | Arthropoda; |
| 41 | Salmocidin | 4 | 4 | Chordata; |
| 42 | Mytilin | 4 | 4 | Mollusca; |
| 43 | Pseudin | 4 | 4 | Chordata; |
| 44 | Tigerinin | 4 | 4 | Arthropoda; Chordata; |
| 45 | Putative antimicrobial knottin protein_Btk | 4 | 4 | Arthropoda; |

| | | | | |
|----|--|-----|-----|---|
| 46 | GGY antimicrobial | 4 | 4 | Arthropoda; |
| 47 | oxyopinin 2 | 4 | 4 | Arthropoda; |
| 48 | Abaecin | 4 | 4 | Arthropoda; |
| 49 | Histatin | 3 | 29 | Chordata; |
| 50 | Halocidin subunit | 3 | 5 | Chordata; |
| 51 | Dermeidin | 3 | 5 | Chordata; |
| 52 | Drosocin | 3 | 3 | Arthropoda; |
| 53 | Protonectin | 3 | 3 | Arthropoda; |
| 54 | Microplusin | 3 | 3 | Arthropoda; |
| 55 | Defensin 4 | 3 | 3 | Arthropoda; |
| 56 | Xenoxin | 3 | 3 | Chordata; |
| 57 | diapausin | 3 | 3 | Arthropoda; |
| 58 | defensin like peptide 2 | 3 | 3 | Chordata; |
| 59 | Antimicrobial peptide Alo | 3 | 3 | Arthropoda; |
| 60 | Antimicrobial peptide lumbricin | 3 | 3 | Annelida; |
| 61 | Megourin | 3 | 3 | Arthropoda; |
| 62 | Hematopoietic antimicrobial peptide | 2 | 4 | Chordata; |
| 63 | Hymenoptaecin | 2 | 2 | Arthropoda; |
| 64 | Gallerimycin | 2 | 2 | Arthropoda; |
| 65 | Hysin b | 2 | 2 | Chordata; |
| 66 | Peptide BmKn | 2 | 2 | Arthropoda; |
| 67 | Myticin | 2 | 2 | Mollusca; |
| 68 | Parabutoparin | 2 | 2 | Arthropoda; |
| 69 | Arenicin | 2 | 2 | Annelida; |
| 70 | Acanthoscurrin | 2 | 2 | Arthropoda; |
| 71 | Japonicin | 2 | 2 | Chordata; |
| 72 | Ponericin L | 2 | 2 | Arthropoda; |
| 73 | Metchnikowin | 2 | 2 | Arthropoda; |
| 74 | Formaecin | 2 | 2 | Arthropoda; |
| 75 | Kassinatuerin | 2 | 2 | Chordata; |
| 76 | Hemiptericin | 2 | 2 | Arthropoda; |
| 77 | Pyrrhocoricin | 2 | 2 | Arthropoda; |
| 78 | AICRP | 2 | 2 | Arthropoda; |
| 79 | HHH antimicrobial | 2 | 2 | Arthropoda; |
| 80 | Hemolytic protein A1 | 2 | 2 | Chordata; |
| 81 | defensin like peptide 1 | 2 | 2 | Chordata; |
| | Toxins and venom peptides | | | |
| 1 | Conotoxin_1 | 727 | 752 | Arthropoda; Mollusca; Platyhelminthes; |
| 2 | Snake toxins | 439 | 439 | Chordata; |
| 3 | Scorpion toxin | 303 | 307 | Arthropoda; |
| 4 | Scorpion short toxin 1 | 123 | 118 | Arthropoda; |
| 5 | Alpha conotoxin | 95 | 98 | Mollusca; |
| 6 | Mu agatoxin and spider toxin SFI | 68 | 84 | Arthropoda; |
| 7 | Anenome neurotoxin | 50 | 50 | Cnidaria; |
| 8 | I superfamily conotoxin | 48 | 48 | Mollusca; |
| 9 | omega agatoxin | 34 | 37 | Arthropoda; |
| 10 | Mastoparan | 28 | 28 | Arthropoda; |
| 11 | Ergtoxin | 25 | 25 | Arthropoda; |
| 12 | Spider toxin Tx2 | 24 | 24 | Arthropoda; |
| 13 | Omega atracotoxin | 23 | 23 | Arthropoda; |
| 14 | Long_chain_potassium_channel_inhibitor scorpion toxin | 19 | 20 | Arthropoda; |
| 15 | Myotoxins | 16 | 17 | Chordata; |
| 16 | Scorpion short toxin 2 | 16 | 16 | Arthropoda; |
| 17 | Potassium channel toxin alpha KTx | 15 | 15 | Arthropoda; |
| 18 | Beta bungarotoxin B chain precursor | 15 | 15 | Chordata; |
| 19 | huwentoxin 2 | 13 | 13 | Arthropoda; |
| 20 | Vespid chemotactic peptide | 12 | 12 | Arthropoda; |
| 21 | Melittin | 11 | 11 | Arthropoda; Chordata; |

| | | | | |
|----|--|----|----|-----------------------|
| 22 | Delta atracotoxin | 8 | 8 | Arthropoda; |
| 23 | Pardaxin | 7 | 7 | Chordata; |
| 24 | sea_anemone_potassium_channel_inhibitory toxin | 7 | 7 | Cnidaria; |
| 25 | Alpha A conotoxin | 7 | 7 | Mollusca; |
| 26 | sea anemone BDS toxin | 6 | 6 | Cnidaria; |
| 27 | conotoxin J | 6 | 6 | Mollusca; |
| 28 | conotoxin P | 6 | 6 | Mollusca; |
| 29 | Secapin | 6 | 6 | Arthropoda; |
| 30 | Mast cell degranulating peptide | 5 | 5 | Arthropoda; |
| 31 | Neurotoxin magi | 5 | 5 | Arthropoda; |
| 32 | Bombolitin | 5 | 5 | Arthropoda; |
| 33 | Hydralysin | 4 | 4 | Cnidaria; |
| 34 | Conantokin | 4 | 4 | Mollusca; |
| 35 | aptotoxin | 4 | 4 | Arthropoda; |
| 36 | vespryn | 4 | 4 | Chordata; |
| 37 | latrotoxin | 4 | 4 | Arthropoda; |
| 38 | Aptotoxin 1 4 6 9 Paralytic peptide | 4 | 4 | Arthropoda; |
| 39 | janus atracotoxin | 4 | 4 | Arthropoda; |
| 40 | spider toxin CSTX | 3 | 6 | Arthropoda; |
| 41 | Alpha D conotoxin | 3 | 4 | Mollusca; |
| 42 | Conotoxin contulakin | 3 | 3 | Mollusca; |
| 43 | Jellyfish toxin | 3 | 3 | Cnidaria; |
| 44 | Potassium channel toxin kappa KTx | 3 | 3 | Arthropoda; |
| 45 | Conotoxin flf14 | 3 | 3 | Mollusca; |
| 46 | venom vasodilator peptide | 3 | 3 | Chordata; |
| 47 | LiTx toxin | 3 | 3 | Arthropoda; |
| 48 | SNTX VTX toxin | 3 | 3 | Chordata; |
| 49 | Insecticidal toxin DTX | 3 | 3 | Arthropoda; |
| 50 | Toxin PsTX 60 | 3 | 3 | Cnidaria; |
| 51 | Toxin protein KITx | 3 | 3 | Arthropoda; |
| 52 | Paralytic insecticidal toxin | 3 | 3 | Arthropoda; |
| 53 | Cysteine rich peptide | 3 | 3 | Arthropoda; |
| 54 | cytotoxin | 3 | 0 | Arthropoda; |
| 55 | Venom peptide M | 2 | 4 | Arthropoda; |
| 56 | turrtoxin | 2 | 4 | Mollusca; |
| 57 | scorpion toxin IsCT | 2 | 4 | Arthropoda; |
| 58 | Conotoxin Gla | 2 | 2 | Mollusca; |
| 59 | Toxin Te50 43 | 2 | 2 | Arthropoda; |
| 60 | Toxin Te46 61 | 2 | 2 | Arthropoda; |
| 61 | Neurotoxin B | 2 | 2 | Nemertea; |
| 62 | sea anemone short toxin | 2 | 2 | Cnidaria; |
| 63 | Tamulustoxin | 2 | 2 | Arthropoda; |
| 64 | Waglerin | 2 | 2 | Chordata; |
| 65 | Toxin TxP I | 2 | 2 | Arthropoda; |
| 66 | pompilidotoxin | 2 | 2 | Arthropoda; |
| 67 | Toxin AETX | 2 | 2 | Cnidaria; |
| 68 | Oxytoxin | 2 | 2 | Arthropoda; |
| 69 | Polybine | 2 | 2 | Arthropoda; |
| 70 | Tetrapandin | 2 | 2 | Arthropoda; |
| 71 | Ectatomin | 2 | 2 | Arthropoda; |
| 72 | Acrorhagin-1 | 2 | 2 | Cnidaria; |
| 73 | Acrorhagin-2 | 2 | 2 | Cnidaria; |
| 74 | Alpha S conotoxin | 2 | 2 | Mollusca; |
| 75 | Lycotoxin | 2 | 2 | Arthropoda; |
| 76 | Conophan | 2 | 2 | Mollusca; |
| | Antifreeze | | | |
| 1 | Antifreeze protein 1 | 65 | 65 | Arthropoda; Chordata; |
| 2 | Type III antifreeze | 42 | 43 | Chordata; |
| 3 | Antifreeze protein AFP 2 | 31 | 31 | Arthropoda; |

| | | | | |
|----|---|-----|-----|--|
| 4 | Antifreeze glycoprotein AFGP | 29 | 36 | Chordata; |
| 5 | Type I antifreeze protein | 18 | 18 | Chordata; |
| 6 | Antifreeze protein type IV | 5 | 5 | Chordata; |
| | Others | | | |
| 1 | Fibrinogen_alpha_1_chain_precursor | 810 | 717 | Arthropoda; Chordata; Echinodermata; Mollusca; Porifera; |
| 2 | Thymosin_beta | 106 | 114 | Arthropoda; Chordata; Cnidaria; Echinodermata; Mollusca; Nematoda; Platyhelminthes; Porifera; |
| 3 | Sperm activating peptide | 41 | 53 | Echinodermata; |
| 4 | Putative peptide 11 | 28 | 28 | Arthropoda; |
| 5 | L71 | 27 | 27 | Arthropoda; |
| 6 | Submaxillary_gland_androgen_regulated_ protein | 18 | 24 | Chordata; |
| 7 | Pacifastin related peptide | 17 | 40 | Arthropoda; Chordata; |
| 8 | Colipase | 16 | 16 | Chordata; |
| 9 | Putative peptide 7 | 14 | 14 | Arthropoda; |
| 10 | Immune induced peptide precursor | 14 | 14 | Arthropoda; |
| 11 | Nematode_specific_peptide_family_group b | 14 | 14 | Nematoda; |
| 12 | Nematode_specific_peptide_family_group c | 12 | 12 | Nematoda; |
| 13 | Salivary glue protein 3 | 10 | 7 | Arthropoda; |
| 14 | GGNG_myoactive peptide | 9 | 10 | Annelida; |
| 15 | CAMP_generating peptide | 9 | 7 | Arthropoda; |
| 16 | Dynastin | 7 | 7 | Chordata; |
| 17 | Phosphatidylethanolamine_binding_protei n | 6 | 12 | Chordata; |
| 18 | Cytin A chain | 6 | 6 | Annelida; |
| 19 | Ornatin | 6 | 6 | Annelida; |
| 20 | Immune induced peptides 13 | 5 | 7 | Arthropoda; |
| 21 | Attractin | 5 | 5 | Mollusca; |
| 22 | putative salivary secreted peptid | 5 | 5 | Arthropoda; |
| 23 | Testis ecdysiotropin peptide | 5 | 5 | Arthropoda; |
| 24 | Putative peptide 1 | 5 | 5 | Arthropoda; |
| 25 | Salivary anti thrombin anophelin | 5 | 5 | Arthropoda; |
| 26 | Coagulogen | 4 | 12 | Arthropoda; |
| 27 | Seminal vesicle specific peptide | 4 | 5 | Arthropoda; |
| 28 | Protein C12orf39 | 4 | 5 | Chordata; |
| 29 | Putative peptide 4 | 4 | 4 | Arthropoda; |
| 30 | Mlpt | 4 | 4 | Arthropoda; |
| 31 | Statherin | 4 | 4 | Chordata; |
| 32 | giant-lens | 4 | 1 | Arthropoda; |
| 33 | Putative peptide 10 | 4 | 0 | Arthropoda; |
| 34 | Putative peptide 5 | 4 | 0 | Arthropoda; |
| 35 | Follicular dendritic cell secreted peptide | 3 | 3 | Chordata; |
| 36 | Pedibin | 3 | 3 | Cnidaria; |
| 37 | Sodefrin | 3 | 3 | Chordata; |
| 38 | Salivary glue protein 5 | 3 | 3 | Arthropoda; |
| 39 | Putative peptide 9 | 3 | 3 | Arthropoda; |
| 40 | trunk protein | 3 | 1 | Arthropoda; |
| 41 | Putative peptide 2 | 3 | 0 | Arthropoda; |
| 42 | Skin secreted peptide 1 | 2 | 2 | Chordata; |
| 43 | Pneumadin | 2 | 2 | Chordata; |
| 44 | Eyestalk peptide | 2 | 2 | Arthropoda; |
| 45 | Bioactive peptide 1 | 2 | 2 | Chordata; |
| 46 | Putative peptide 3 | 2 | 2 | Arthropoda; |
| 47 | Putative peptide 6 | 2 | 0 | Arthropoda; |
| 48 | Putative peptide 8 | 2 | 0 | Arthropoda; |

| | | | | |
|----|---------------------|---|---|-------------|
| 49 | Putative peptide 12 | 2 | 2 | Arthropoda; |
| 50 | Putative peptide 13 | 2 | 1 | Arthropoda; |

Table 1 lists 373 peptide families in total, which include 49 families of cytokine and growth factor, 111 families of hormone, 81 families of antimicrobial, 76 families of toxins and venom peptides, 6 families of antifreeze, and 50 families of other types of bioactive peptides. Peptide families are sorted decreasingly by 'NPro' in each of the above-mentioned peptide family types. Id: family identity. Family_name: the name of peptide families. NPro: the number of proteins in a family. NPep: the number of peptides in a family. Phyla distribution: the phyla from which the peptide proteins originate.