

## Annex 1 – Proteins identified by Proteome Discovery in the venom from *Montivipera bulgardaghica*

| Accession      | Description                                                                                                  | Family         |
|----------------|--------------------------------------------------------------------------------------------------------------|----------------|
| JAG46882.1     | Endoplasmic reticulum aminopeptidase 1-like protein [Crotalus horridus]                                      | Aminopeptidase |
| ATU85538.1     | Aminopeptidase A, partial [Bothrops moojeni]                                                                 | Aminopeptidase |
| BAP39945.1     | Aminopeptidase A [Protobothrops elegans]                                                                     | Aminopeptidase |
| JAG65874.1     | Xaa-Pro aminopeptidase 2 [Boiga irregularis]                                                                 | Aminopeptidase |
| XP_026530513.1 | Xaa-Pro aminopeptidase 2 [Notechis scutatus]                                                                 | Aminopeptidase |
| XP_026580740.1 | Xaa-Pro aminopeptidase 2-like [Pseudonaja textilis]                                                          | Aminopeptidase |
| XP_039186984.1 | Xaa-Pro aminopeptidase 2 isoform X1 [Crotalus tigris]                                                        | Aminopeptidase |
| XP_015676063.1 | Xaa-Pro aminopeptidase 2 [Protobothrops mucrosquamatus]                                                      | Aminopeptidase |
| JAG45871.1     | Aminopeptidase N [Crotalus horridus]                                                                         | Aminopeptidase |
| P85099.1       | Cysteine-rich venom protein                                                                                  | CRISP          |
| P0DMT4.1       | Cysteine-rich venom protein                                                                                  | CRISP          |
| AAP20602.1     | Cysteine-rich venom protein [Protobothrops jerdonii]                                                         | CRISP          |
| QHR82745.1     | Cysteine-rich secretory protein 1, partial [Vipera anatolica senliki]                                        | CRISP          |
| ACE73567.1     | Cysteine-rich secretory protein Dr-CRPK [Daboia russelii]                                                    | CRISP          |
| AAO62996.1     | Ophanin [Ophiophagus hannah]                                                                                 | CRISP          |
| ACE73568.1     | Cysteine-rich secretory protein Dr-CRPB, partial [Daboia russelii]                                           | CRISP          |
| CAP74089.1     | Cysteine-rich venom protein precursor [Vipera berus]                                                         | CRISP          |
| A7X4T8.1       | Cysteine-rich venom protein Cau1                                                                             | CRISP          |
| KAG5858144.1   | Snake venom CRISP precursor [Bothrops jararaca]                                                              | CRISP          |
| CAK12655.1     | MLD-containing dimeric disintegrin subunit ml-G2 precursor, partial [Macrovipera lebetina transmediterranea] | DIS            |
| AMB36347.1     | Disintegrin Dis-1 [Vipera ammodytes ammodytes]                                                               | DIS            |
| P0C6A6.1       | Disintegrin VB7A                                                                                             | DIS            |
| CAJ40966.1     | MLD-containing dimeric disintegrin EO5A subunit precursor [Echis ocellatus]                                  | DIS            |
| P83254.1       | Disintegrin lebein-1-beta                                                                                    | DIS            |
| JAC96580.1     | L-amino acid oxidase B variant 1 [Echis coloratus]                                                           | LAAO           |
| P0C2D4.1       | L-amino-acid oxidase                                                                                         | LAAO           |
| XP_039216947.1 | L-amino-acid oxidase isoform X1 [Crotalus tigris]                                                            | LAAO           |
| ACF70483.1     | Secreted L-amino acid oxidase precursor [Daboia russelii]                                                    | LAAO           |
| JAS04522.1     | L-amino acid oxidase [Agkistrodon piscivorus conanti]                                                        | LAAO           |
| QBF53419.1     | L-amino acid oxidase LAAO-II [Vipera ammodytes ammodytes]                                                    | LAAO           |
| CAB71136.1     | L-amino acid oxidase [Calloselasma rhodostoma]                                                               | LAAO           |
| CAQ72894.1     | L-amino oxidase [Echis ocellatus]                                                                            | LAAO           |
| QHR82782.1     | Nerve growth factor 1 [Vipera anatolica senliki]                                                             | NGF            |
| P0DJJ5.1       | Snake venom 5'-nucleotidase                                                                                  | Nucleotidase   |
| 5H7W           | A Chain A, venom 5'-nucleotidase                                                                             | Nucleotidase   |
| KAG5858140.1   | Snake venom 5' nucleotidase precursor [Bothrops jararaca]                                                    | Nucleotidase   |
| XP_032071557.1 | LOW QUALITY PROTEIN: 5'-nucleotidase [Thamnophis elegans]                                                    | Nucleotidase   |
| AHJ80886.1     | 5'-nucleotidase, partial [Macrovipera lebetina]                                                              | Nucleotidase   |
| KAG8124065.1   | Putative Ecto-5'-nucleotidase 1c protein [Naja naja]                                                         | Nucleotidase   |
| XP_026548672.1 | Snake venom 5'-nucleotidase-like, partial [Notechis scutatus]                                                | Nucleotidase   |
| XP_007427924.1 | 5'-nucleotidase [Python bivittatus]                                                                          | Nucleotidase   |
| CAE47140.1     | Ammodytin I1(A) variant [Vipera aspis aspis]                                                                 | PLA            |
| XP_039196675.1 | Phospholipase A2 inhibitor A4/A5 [Crotalus tigris]                                                           | PLA            |
| JAA94875.1     | Phospholipase A2 8 [Crotalus horridus]                                                                       | PLA            |
| AJA90799.1     | Acidic phospholipase A2 [Atheris nitschei]                                                                   | PLA            |

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| <b>CAE47133.1</b>     | Ammodytin I1(E) isoform [ <i>Vipera aspis aspis</i> ]                       | <b>PLA</b>     |
| <b>B3A0N3.1</b>       | Basic phospholipase A2 Bmaj-9                                               | <b>PLA</b>     |
| <b>1Q5T</b>           | A Chain A, Phospholipase A2 inhibitor                                       | <b>PLA</b>     |
| <b>AAP48893.1</b>     | Phospholipase A2 isozyme Ts-K49a [ <i>Trimeresurus stejnegeri</i> ]         | <b>PLA</b>     |
| <b>ANN23922.1</b>     | Phospholipase A2_1 [ <i>Crotalus molossus nigrescens</i> ]                  | <b>PLA</b>     |
| <b>AAN59982.1</b>     | Phospholipase A2 [ <i>Vipera berus berus</i> ]                              | <b>PLA</b>     |
| <b>P0DPS4.1</b>       | Basic phospholipase A2 Cc2-PLA2                                             | <b>PLA</b>     |
| <b>Q7T3T5.1</b>       | Acidic phospholipase A2 daboia toxin B chain                                | <b>PLA</b>     |
| <b>CAE47230.1</b>     | Ammodytin I2(B) variant [ <i>Vipera aspis atra</i> ]                        | <b>PLA</b>     |
| <b>ABY77917.1</b>     | Phospholipase A2 [ <i>Sistrurus catenatus catenatus</i> ]                   | <b>PLA</b>     |
| <b>CAE47211.1</b>     | Ammodytin I2(A) variant [ <i>Vipera aspis aspis</i> ]                       | <b>PLA</b>     |
| <b>1RGB</b>           | K chain k, phospholipase a2                                                 | <b>PLA</b>     |
| <b>CAE47179.1</b>     | Ammodytin I1(D) isoform [ <i>Vipera ammodytes meridionalis</i> ]            | <b>PLA</b>     |
| <b>ADG86231.1</b>     | Phospholipase A2 [ <i>Vipera ursinii</i> ]                                  | <b>PLA</b>     |
| <b>CAE47239.1</b>     | Ammodytin I2(C) variant [ <i>Vipera ammodytes meridionalis</i> ]            | <b>PLA</b>     |
| <b>CAE47237.1</b>     | Ammodytin I2(C) variant [ <i>Vipera ammodytes meridionalis</i> ]            | <b>PLA</b>     |
| <b>AJS19104.1</b>     | Phospholipase A2 precursor [ <i>Atheris squamigera</i> ]                    | <b>PLA</b>     |
| <b>AHJ09543.1</b>     | Phospholipase A2 [ <i>Trimeresurus malcolmi</i> ]                           | <b>PLA</b>     |
| <b>AAC78084.1</b>     | Phospholipase A2 precursor [ <i>Daboia palaestinae</i> ]                    | <b>PLA</b>     |
| <b>P81458.1</b>       | Basic phospholipase A2 RVV-VD                                               | <b>PLA</b>     |
| <b>B5U6Y4.1</b>       | Phospholipase A2 homolog                                                    | <b>PLA</b>     |
| <b>XP_015667444.1</b> | Group 10 secretory phospholipase A2 [ <i>Protobothrops mucrosquamatus</i> ] | <b>PLA</b>     |
| <b>ETE59578.1</b>     | Phospholipase B-like 1, partial [ <i>Ophiophagus hannah</i> ]               | <b>PLB</b>     |
| <b>AXL96594.1</b>     | Phospholipase B1, partial [ <i>Borikenophis portoricensis</i> ]             | <b>PLB</b>     |
| <b>XP_026553321.1</b> | Phospholipase B-like 1 [ <i>Pseudonaja textilis</i> ]                       | <b>PLB</b>     |
| <b>QBF53421.1</b>     | Phospholipase B [ <i>Vipera ammodytes ammodytes</i> ]                       | <b>PLB</b>     |
| <b>JAC96587.1</b>     | Phospholipase B [ <i>Echis coloratus</i> ]                                  | <b>PLB</b>     |
| <b>ABW82665.1</b>     | C-type lectin, partial [ <i>Macrovipera lebetina</i> ]                      | <b>SNACLEC</b> |
| <b>AJO70722.1</b>     | C-type lectin-like protein 2B [ <i>Macrovipera lebetina</i> ]               | <b>SNACLEC</b> |
| <b>KAG5858198.1</b>   | Snake venom C-type Lectin precursor [ <i>Bothrops jararaca</i> ]            | <b>SNACLEC</b> |
| <b>P0DJL5.1</b>       | Snaclec VP12 subunit B                                                      | <b>SNACLEC</b> |
| <b>ABA86561.1</b>     | C-type lectin-like protein subunit 8 [ <i>Daboia siamensis</i> ]            | <b>SNACLEC</b> |
| <b>P0DJL4.1</b>       | Snaclec VP12 subunit A                                                      | <b>SNACLEC</b> |
| <b>BAP39929.1</b>     | C-type lectin B subunit, partial [ <i>Protobothrops elegans</i> ]           | <b>SNACLEC</b> |
| <b>JAC96618.1</b>     | C-type lectin I [ <i>Echis coloratus</i> ]                                  | <b>SNACLEC</b> |
| <b>AMB36341.1</b>     | C-type lectin snaclec-4 [ <i>Vipera ammodytes ammodytes</i> ]               | <b>SNACLEC</b> |
| <b>B4XSY9.1</b>       | Snaclec A14                                                                 | <b>SNACLEC</b> |
| <b>Q7T045.1</b>       | Snaclec coagulation factor X-activating enzyme light chain 1                | <b>SNACLEC</b> |
| <b>ABW82673.1</b>     | C-type lectin [ <i>Macrovipera lebetina</i> ]                               | <b>SNACLEC</b> |
| <b>AMB36339.1</b>     | C-type lectin snaclec-2 [ <i>Vipera ammodytes ammodytes</i> ]               | <b>SNACLEC</b> |
| <b>AMB36338.1</b>     | C-type lectin snaclec-1 [ <i>Vipera ammodytes ammodytes</i> ]               | <b>SNACLEC</b> |
| <b>AJO70724.1</b>     | C-type lectin-like protein 4A [ <i>Macrovipera lebetina</i> ]               | <b>SNACLEC</b> |
| <b>B4XSY5.1</b>       | Snaclec A10                                                                 | <b>SNACLEC</b> |
| <b>C0HKZ6.1</b>       | Snaclec macrovipectin subunit alpha                                         | <b>SNACLEC</b> |
| <b>B4XT06.1</b>       | Snaclec B7                                                                  | <b>SNACLEC</b> |
| <b>AJO70726.1</b>     | C-type lectin-like protein 3A [ <i>Macrovipera lebetina</i> ]               | <b>SNACLEC</b> |
| <b>APB93442.1</b>     | Snaclec-5 [ <i>Vipera ammodytes ammodytes</i> ]                             | <b>SNACLEC</b> |
| <b>ABW82660.1</b>     | C-type lectin, partial [ <i>Macrovipera lebetina</i> ]                      | <b>SNACLEC</b> |
| <b>JAC96617.1</b>     | C-type lectin J [ <i>Echis coloratus</i> ]                                  | <b>SNACLEC</b> |
| <b>AJO70723.1</b>     | C-type lectin-like protein 3B [ <i>Macrovipera lebetina</i> ]               | <b>SNACLEC</b> |

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| APB93444.1     | Snaclec-7 [Vipera ammodytes ammodytes]                                                   | SNACLEC |
| ABW82671.1     | C-type lectin, partial [Macrovipera lebetina]                                            | SNACLEC |
| JAV51442.1     | Metalloproteinase (type I) 6a [Agkistrodon contortrix contortrix]                        | svMP    |
| JAV48408.1     | Cadam10_SVMP11-6 [Crotalus adamanteus]                                                   | svMP    |
| ADI47635.1     | Metalloproteinase [Echis coloratus]                                                      | svMP    |
| XP_032069053.1 | Disintegrin and metalloproteinase domain-containing protein 20-like [Thamnophis elegans] | svMP    |
| JAC96426.1     | Metalloproteinase (type III) 7b [Hypsiglena sp. JMG-2014]                                | svMP    |
| AAX86634.1     | Metalloproteinase MP-2, partial [Bitis arietans]                                         | svMP    |
| CAA66471.1     | Lebetase Le3 [Macrovipera lebetina]                                                      | svMP    |
| JAC96598.1     | Snake venom metalloproteinase M, partial [Echis coloratus]                               | svMP    |
| AMB36350.1     | Metalloproteinase of class P-II MP11-2 [Vipera ammodytes ammodytes]                      | svMP    |
| ADI47670.1     | Metalloproteinase, partial [Echis pyramidum leakeyi]                                     | svMP    |
| J3SDW8.1       | Zinc metalloproteinase-disintegrin-like 8                                                | svMP    |
| Q0NZX9.1       | Zinc metalloproteinase-disintegrin-like bothrojarin-2                                    | svMP    |
| AEH59577.1     | Metalloprotease P111 [Trimeresurus gracilis]                                             | svMP    |
| JAA94871.1     | Snake venom metalloproteinase (type III) 2 [Crotalus horridus]                           | svMP    |
| JAS03114.1     | Metalloproteinase, partial [Phalotris mertensi]                                          | svMP    |
| AHB62069.1     | Metalloproteinase H4-A [Vipera ammodytes ammodytes]                                      | svMP    |
| XP_015685664.1 | Zinc metalloproteinase/disintegrin-like HR1a, partial [Protobothrops mucrosquamatus]     | svMP    |
| AMB36336.1     | Endogenous tripeptide metalloproteinase inhibitor precursor [Vipera ammodytes ammodytes] | svMP    |
| JAV51433.1     | Metalloproteinase (type III) 5a [Agkistrodon contortrix contortrix]                      | svMP    |
| Q4VM07.1       | Zinc metalloproteinase-disintegrin-like VLAIP-B                                          | svMP    |
| JAS04471.1     | Metalloproteinase type I 7 [Agkistrodon piscivorus conanti]                              | svMP    |
| ADI47650.1     | Metalloproteinase [Echis coloratus]                                                      | svMP    |
| XP_032084680.1 | Zinc metalloproteinase-disintegrin-like MTP8 [Thamnophis elegans]                        | svMP    |
| JAS05279.1     | Metalloproteinase type III 4c [Sistrurus tergeminus]                                     | svMP    |
| ADI47590.1     | Metalloproteinase [Echis carinatus sochureki]                                            | svMP    |
| AJC52543.1     | Metalloproteinase F1 precursor [Vipera ammodytes ammodytes]                              | svMP    |
| ACV83930.1     | Metalloproteinase VMP-I precursor [Agkistrodon contortrix laticinctus]                   | svMP    |
| ADI47641.1     | Metalloproteinase [Echis coloratus]                                                      | svMP    |
| AMB36349.1     | Metalloproteinase of class P-II MP11-1 [Vipera ammodytes ammodytes]                      | svMP    |
| P0DJE2.3       | Zinc metalloproteinase-disintegrin-like ammodtagin                                       | svMP    |
| AMB36351.1     | Metalloproteinase of class P-II MP11-3 [Vipera ammodytes ammodytes]                      | svMP    |
| QBF53415.1     | Metalloproteinase of class P-III MP11-2 [Vipera ammodytes ammodytes]                     | svMP    |
| AFJ49244.1     | Snake venom metalloproteinase (type III) 6 [Crotalus adamanteus]                         | svMP    |
| XP_015681821.1 | Zinc metalloproteinase-disintegrin jerdonitin [Protobothrops mucrosquamatus]             | svMP    |
| CAJ01679.1     | Group III snake venom metalloproteinase [Echis ocellatus]                                | svMP    |
| JAA94872.1     | Snake venom metalloproteinase (type III) 1 [Crotalus horridus]                           | svMP    |
| ADI47654.1     | Metalloproteinase, partial [Echis coloratus]                                             | svMP    |
| ADW54356.1     | Group III snake venom metalloproteinase [Echis carinatus sochureki]                      | svMP    |
| ADI47595.1     | Metalloproteinase, partial [Echis carinatus sochureki]                                   | svMP    |
| B8K1W0.1       | Zinc metalloproteinase-disintegrin-like daborhagin-K                                     | svMP    |
| ADW54352.1     | Group III snake venom metalloproteinase, partial [Echis ocellatus]                       | svMP    |
| ADI47585.1     | Metalloproteinase [Echis carinatus sochureki]                                            | svMP    |
| QBF53417.1     | Metalloproteinase of class P-III MP11-4 [Vipera ammodytes ammodytes]                     | svMP    |
| ADI47673.1     | Metalloproteinase, partial [Echis pyramidum leakeyi]                                     | svMP    |
| QBF53416.1     | Metalloproteinase-like protein of class P-III MP11-3 [Vipera ammodytes ammodytes]        | svMP    |
| AMB36352.1     | Metalloproteinase of class P-III MP11-1 [Vipera ammodytes ammodytes]                     | svMP    |
| AGL45259.1     | H3 metalloproteinase precursor 1 [Vipera ammodytes ammodytes]                            | svMP    |
| ADW54338.1     | Group III snake venom metalloproteinase [Echis ocellatus]                                | svMP    |

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| KAG5858176.1   | Snake venom metalloprotease [Bothrops jararaca]                                                  | svMP  |
| ADI47668.1     | Metalloproteinase [Echis pyramidum leakeyi]                                                      | svMP  |
| AEJ31985.1     | Metalloproteinase 2 [Crotalus adamanteus]                                                        | svMP  |
| QGC85373.1     | Metalloproteinase [Dispholidus typus]                                                            | svMP  |
| CAA55566.1     | Metalloprotease, partial [Echis pyramidum leakeyi]                                               | svMP  |
| P20164.4       | Zinc metalloproteinase-disintegrin-like HR1b                                                     | svMP  |
| ANT80539.1     | Venom metalloprotease PIII-SVMP EOC00089 [Echis ocellatus]                                       | svMP  |
| JAS04921.1     | Metalloproteinase type III 14c [Hypsiglena sp. JMG-2014]                                         | svMP  |
| XP_032084681.1 | Zinc metalloproteinase-disintegrin-like MTP9 [Thamnophis elegans]                                | svMP  |
| ADI47744.1     | Metalloproteinase [Echis pyramidum leakeyi]                                                      | svMP  |
| BGP45690.1     | Zinc metalloproteinase [Montivipera raddei]                                                      | svMP  |
| JAS04466.1     | Metalloproteinase type II 4 [Agkistrodon piscivorus conanti]                                     | svMP  |
| XP_015683145.1 | LOW QUALITY PROTEIN: zinc metalloproteinase-disintegrin-like ACLD [Protobothrops mucrosquamatus] | svMP  |
| P0DQ4.1        | Venom phosphodiesterase cdcpe                                                                    | svPDE |
| XP_007430581.1 | Ectonucleotide pyrophosphatase/phosphodiesterase family member 3, partial [Python bivittatus]    | svPDE |
| JAI10404.1     | Ectonucleotide pyrophosphatase/phosphodiesterase family member 6 [Crotalus adamanteus]           | svPDE |
| W8E7D1.1       | Recname: Full=Venom phosphodiesterase; Short=PDE; Short=VLPDE; Flags: Precursor                  | svPDE |
| JAS05450.1     | Phosphodiesterase [Sistrurus miliarius barbouri]                                                 | svPDE |
| BAN89425.1     | Phosphodiesterase [Ovophis okinavensis]                                                          | svPDE |
| XP_039220998.1 | Ectonucleotide pyrophosphatase/phosphodiesterase family member 2 isoform X1 [Crotalus tigris]    | svPDE |
| JAG45243.1     | Putative serine carboxypeptidase CPVL-like protein [Crotalus horridus]                           | svSP  |
| AAR24534.1     | Serine protease 1 [Bitis gabonica]                                                               | svSP  |
| JAS04672.1     | Serine proteinase 3a [Crotalus adamanteus]                                                       | svSP  |
| JAS04414.1     | Serine proteinase 1 [Agkistrodon piscivorus conanti]                                             | svSP  |
| P0DPS3.1       | Recname: Full=Snake venom serine protease vasp1                                                  | svSP  |
| Q7T046.1       | Coagulation factor X-activating enzyme heavy chain                                               | svSP  |
| P86530.1       | Vipera russelli proteinase RVV-V homolog 1                                                       | svSP  |
| AMB36345.1     | Serine proteinase SP-4 [Vipera ammodytes ammodytes]                                              | svSP  |
| B0ZT25.1       | Snake venom serine protease homolog                                                              | svSP  |
| Q6T5L0.2       | Alpha-fibrinogenase shedaoenase                                                                  | svSP  |
| C0HK18.1       | Thrombin-like enzyme collinein-4                                                                 | svSP  |
| QBF53412.1     | Serine proteinase SP-6 [Vipera ammodytes ammodytes]                                              | svSP  |
| AAW56633.1     | Thrombin-like enzyme 2 [Deinagkistrodon acutus]                                                  | svSP  |
| Q7LZ61.2       | Coagulation factor X-activating enzyme heavy chain                                               | svSP  |
| QHR82813.1     | Serine protease 10, partial [Vipera anatolica senliki]                                           | svSP  |
| E0Y421.1       | Chymotrypsin-like protease VLCTLP                                                                | svSP  |
| XP_039181637.1 | Snake venom serine protease catroase-2 isoform X1 [Crotalus tigris]                              | svSP  |
| KAG5858162.1   | Snake venom serine protease precursor [Bothrops jararaca]                                        | svSP  |
| AMB36344.1     | Serine proteinase SP-3 [Vipera ammodytes ammodytes]                                              | svSP  |
| ADI47549.1     | Serine protease, partial [Echis coloratus]                                                       | svSP  |
| ADN04916.1     | Serine protease VLSP-1 precursor [Macrovipera lebetina]                                          | svSP  |
| AMB36343.1     | Serine proteinase SP-2 [Vipera ammodytes ammodytes]                                              | svSP  |
| E5AJX3.1       | Kunitz-type serine protease inhibitor ki-VN                                                      | svSP  |
| Q9PT40.1       | Venom serine proteinase-like protein 2                                                           | svSP  |
| ADI47567.1     | Serine protease, partial [Echis coloratus]                                                       | svSP  |
| ADI47584.1     | Metalloproteinase [Echis carinatus sochureki]                                                    | svSP  |
| QHR82809.1     | Serine protease 2 [Vipera anatolica senliki]                                                     | svSP  |
| ADI47565.1     | Serine protease, partial [Echis carinatus sochureki]                                             | svSP  |
| 1OP0           | A Chain A, Venom serine proteinase                                                               | svSP  |
| C0HLA2.1       | Full=Thrombin-like enzyme lmrsp-3                                                                | svSP  |

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| <b>BAN82031.1</b>     | Serine protease, partial [Protobothrops flavoviridis]                      | <b>svSP</b> |
| <b>AAT40141.1</b>     | Serine proteinase bthatI precursor, partial [Bothrops alternatus]          | <b>svSP</b> |
| <b>AAL48221.1</b>     | Thrombin-like enzyme ussurin, partial [Gloydus ussuriensis]                | <b>svSP</b> |
| <b>AGY49227.1</b>     | P11 metalloproteinase [Bothriechis lateralis]                              | <b>svSP</b> |
| <b>AUS82539.1</b>     | Serine endopeptidase [Crotalus scutulatus]                                 | <b>svSP</b> |
| <b>JAB52756.1</b>     | Vascular endothelial growth factor 2 [Micrurus fulvius]                    | <b>VEGF</b> |
| <b>P82475.2</b>       | Snake venom vascular endothelial growth factor toxin ICPP                  | <b>VEGF</b> |
| <b>P83942.1</b>       | Snake venom vascular endothelial growth factor toxin HF                    | <b>VEGF</b> |
| <b>AFJ50239.1</b>     | 78 kDa glucose-regulated protein precursor [Crotalus adamanteus]           | -           |
| <b>AAM45664.1</b>     | Ablomin [Gloydus blomhoffii]                                               | -           |
| <b>BAC57972.1</b>     | Alpha globin [Hydrophis melanocephalus]                                    | -           |
| <b>BAC57970.1</b>     | Alpha globin [Naja kaouthia]                                               | -           |
| <b>XP_034279980.1</b> | Alpha-galactosidase A [Pantherophis guttatus]                              | -           |
| <b>XP_015670131.1</b> | Ameloblastin isoform X1 [Protobothrops mucrosquamatus]                     | -           |
| <b>XP_029143063.1</b> | Angiotensin-converting enzyme [Protobothrops mucrosquamatus]               | -           |
| <b>BAD88539.1</b>     | Antihemorrhagic factor precursor [Gloydus blomhoffii]                      | -           |
| <b>1UKM</b>           | B Chain B, EMS16 B chain                                                   | -           |
| <b>1AOK</b>           | B chain b, vipoxin complex                                                 | -           |
| <b>JAV01853.1</b>     | BATXSVMPIII11 [Bothrops atrox]                                             | -           |
| <b>JAV01849.1</b>     | BATXSVMPIII15 [Bothrops atrox]                                             | -           |
| <b>JAV01860.1</b>     | BATXSVMPIII4 [Bothrops atrox]                                              | -           |
| <b>JAV01855.1</b>     | BATXSVMPIII9 [Bothrops atrox]                                              | -           |
| <b>XP_039218749.1</b> | Beta-adrenergic receptor kinase 2 [Crotalus tigris]                        | -           |
| <b>XP_007426342.1</b> | Beta-galactosidase [Python bivittatus]                                     | -           |
| <b>JAB54560.1</b>     | Calreticulin [Micrurus fulvius]                                            | -           |
| <b>XP_039222891.1</b> | Carboxypeptidase D [Crotalus tigris]                                       | -           |
| <b>JAI13964.1</b>     | Cathepsin B-like protein [Crotalus adamanteus]                             | -           |
| <b>JAC94969.1</b>     | Cathepsin D [Opheodrys aestivus]                                           | -           |
| <b>XP_034264657.1</b> | Cation channel sperm-associated protein 3 [Pantherophis guttatus]          | -           |
| <b>XP_034290338.1</b> | Complement C3 isoform X2 [Pantherophis guttatus]                           | -           |
| <b>XP_029139438.1</b> | Deoxyribonuclease-2-alpha [Protobothrops mucrosquamatus]                   | -           |
| <b>XP_039190203.1</b> | Digestive cysteine proteinase 2-like [Crotalus tigris]                     | -           |
| <b>XP_026531922.1</b> | Digestive cysteine proteinase 2-like [Natechis scutatus]                   | -           |
| <b>XP_015671453.1</b> | Digestive cysteine proteinase 2-like [Protobothrops mucrosquamatus]        | -           |
| <b>XP_015679833.1</b> | Dipeptidyl peptidase 2 [Protobothrops mucrosquamatus]                      | -           |
| <b>JAC95757.1</b>     | Dnaj subfamily C member 3-like protein [Hypsigena sp. JMG-2014]            | -           |
| <b>AUF41660.1</b>     | DSAIP, partial [Daboia siamensis]                                          | -           |
| <b>JAB54304.1</b>     | Endonuclease domain-containing 1 protein [Micrurus fulvius]                | -           |
| <b>XP_039225468.1</b> | Endonuclease domain-containing 1 protein-like [Crotalus tigris]            | -           |
| <b>XP_015672764.2</b> | Endosome-associated-trafficking regulator 1 [Protobothrops mucrosquamatus] | -           |
| <b>JAC96588.1</b>     | Epididymal secretory protein type E1 [Echis coloratus]                     | -           |
| <b>XP_007444028.1</b> | Epiplakin-like [Python bivittatus]                                         | -           |
| <b>XP_039219335.1</b> | Extracellular matrix protein 1 [Crotalus tigris]                           | -           |
| <b>ADJ67475.1</b>     | Factor X activator heavy chain [Daboia russelii russelii]                  | -           |
| <b>AAT91068.1</b>     | Factor X activator light chain 2 [Macrovipera lebetina]                    | -           |
| <b>XP_026533597.1</b> | Filamin-B isoform X2 [Natechis scutatus]                                   | -           |
| <b>A3QVN3.1</b>       | Full=hyaluronidase-1                                                       | -           |
| <b>XP_007421537.1</b> | Gelsolin [Python bivittatus]                                               | -           |
| <b>JAV49839.1</b>     | Glia-derived nexin-like protein [Agkistrodon contortrix contortrix]        | -           |
| <b>BAN89449.1</b>     | Glutaminyl_cyclase, partial [Ovophis okinavensis]                          | -           |

|                       |                                                                                               |   |
|-----------------------|-----------------------------------------------------------------------------------------------|---|
| <b>AFE84762.1</b>     | Glutaminyl-peptide cyclotransferases [ <i>Daboia russelii</i> ]                               | - |
| <b>XP_039196843.1</b> | Glutathione peroxidase 3 [ <i>Crotalus tigris</i> ]                                           | - |
| <b>XP_026541079.1</b> | Glyceraldehyde-3-phosphate dehydrogenase, testis-specific [ <i>Notechis scutatus</i> ]        | - |
| <b>XP_026570202.1</b> | Golgi apparatus protein 1 [ <i>Pseudonaja textilis</i> ]                                      | - |
| <b>JAG46662.1</b>     | Hemoglobin subunit alpha [ <i>Crotalus horridus</i> ]                                         | - |
| <b>XP_015682712.1</b> | Hemoglobin subunit beta-1-like [ <i>Protothrips mucrosquamatus</i> ]                          | - |
| <b>XP_026555558.1</b> | Hepatocyte growth factor activator [ <i>Pseudonaja textilis</i> ]                             | - |
| <b>ABI33937.1</b>     | Hyaluronidase [ <i>Echis ocellatus</i> ]                                                      | - |
| <b>LAA56372.1</b>     | Hypothetical protein, partial [ <i>Micrurus corallinus</i> ]                                  | - |
| <b>LAA79337.1</b>     | Hypothetical protein, partial [ <i>Micrurus lemniscatus lemniscatus</i> ]                     | - |
| <b>LAA88400.1</b>     | Hypothetical protein, partial [ <i>Micrurus lemniscatus lemniscatus</i> ]                     | - |
| <b>XP_039215821.1</b> | Junctional adhesion molecule A isoform X1 [ <i>Crotalus tigris</i> ]                          | - |
| <b>AMH40735.1</b>     | Kunitz/BPTI inhibitor-3 [ <i>Vipera ammodytes ammodytes</i> ]                                 | - |
| <b>AMH40736.1</b>     | Kunitz/BPTI inhibitor-4, partial [ <i>Vipera ammodytes ammodytes</i> ]                        | - |
| <b>JAA74732.1</b>     | LAO-Den-1 [ <i>Denisonia devisi</i> ]                                                         | - |
| <b>JAA74832.1</b>     | LAO-Hem-2, partial [ <i>Hemiaspis signata</i> ]                                               | - |
| <b>ACN88545.1</b>     | Leberagin-C, partial [ <i>Macrovipera lebetina transmediterranea</i> ]                        | - |
| <b>Q7L209.1</b>       | Lebetin-2-alpha                                                                               | - |
| <b>XP_039174990.1</b> | Lithostathine-1-alpha-like isoform X1 [ <i>Crotalus tigris</i> ]                              | - |
| <b>QHR82774.1</b>     | Lysosomal acid lipase/cholesteryl ester hydrolase 1 [ <i>Vipera anatolica senliki</i> ]       | - |
| <b>XP_039179132.1</b> | Macrophage colony-stimulating factor 1 isoform X1 [ <i>Crotalus tigris</i> ]                  | - |
| <b>QIV64939.1</b>     | MAD-4a [ <i>Crotalus atrox</i> ]                                                              | - |
| <b>QIV64919.1</b>     | MDC-6c [ <i>Crotalus scutulatus</i> ]                                                         | - |
| <b>QIV64921.1</b>     | MDC-6d [ <i>Crotalus scutulatus</i> ]                                                         | - |
| <b>JAA94889.1</b>     | Mesencephalic astrocyte-derived neurotrophic factor-like protein [ <i>Crotalus horridus</i> ] | - |
| <b>XP_026522089.1</b> | Mitogen-activated protein kinase 4 [ <i>Notechis scutatus</i> ]                               | - |
| <b>QIV64936.1</b>     | MPO-1 [ <i>Crotalus atrox</i> ]                                                               | - |
| <b>ETE62684.1</b>     | Muellerian-inhibiting factor, partial [ <i>Ophiophagus hannah</i> ]                           | - |
| <b>XP_032087784.1</b> | Multiple inositol polyphosphate phosphatase 1 [ <i>Thamnophis elegans</i> ]                   | - |
| <b>AGC67020.1</b>     | Myotoxic protein PLA2K49 [ <i>Bothrocophias andianus</i> ]                                    | - |
| <b>XP_026521150.1</b> | Nephrilysin isoform X1 [ <i>Notechis scutatus</i> ]                                           | - |
| <b>AAZ75635.1</b>     | NGF-AZE1, partial [ <i>Azemiops feae</i> ]                                                    | - |
| <b>ABQ01139.1</b>     | Nigrescease-1 [ <i>Cryptophis nigrescens</i> ]                                                | - |
| <b>ADK22832.1</b>     | P31 beta subunit [ <i>Daboia siamensis</i> ]                                                  | - |
| <b>XP_039218972.1</b> | Palmitoyl-protein thioesterase 1 [ <i>Crotalus tigris</i> ]                                   | - |
| <b>XP_029142321.1</b> | Peptidyl-prolyl cis-trans isomerase A-like [ <i>Protothrips mucrosquamatus</i> ]              | - |
| <b>XP_015673928.1</b> | Peptidyl-prolyl cis-trans isomerase B [ <i>Protothrips mucrosquamatus</i> ]                   | - |
| <b>XP_015683238.1</b> | Peroxiredoxin-4 [ <i>Protothrips mucrosquamatus</i> ]                                         | - |
| <b>AAD01624.1</b>     | Plasminogen activator precursor [ <i>Gloydius brevicaudus</i> ]                               | - |
| <b>XP_026534175.1</b> | Plialpha-like protein [ <i>Notechis scutatus</i> ]                                            | - |
| <b>XP_013931233.1</b> | PREDICTED: hemoglobin subunit beta-2 [ <i>Thamnophis sirtalis</i> ]                           | - |
| <b>XP_013922373.1</b> | PREDICTED: hexokinase-3-like [ <i>Thamnophis sirtalis</i> ]                                   | - |
| <b>XP_013915209.1</b> | PREDICTED: keratin, type II cytoskeletal 6A-like [ <i>Thamnophis sirtalis</i> ]               | - |
| <b>XP_013930806.1</b> | PREDICTED: phospholipid transfer protein [ <i>Thamnophis sirtalis</i> ]                       | - |
| <b>XP_013909830.1</b> | PREDICTED: uncharacterized protein LOC106539550 [ <i>Thamnophis sirtalis</i> ]                | - |
| <b>AFJ51021.1</b>     | Prominin-3 [ <i>Crotalus adamanteus</i> ]                                                     | - |
| <b>XP_039188894.1</b> | Protein bicaudal D homolog 1 isoform X1 [ <i>Crotalus tigris</i> ]                            | - |
| <b>JAC95613.1</b>     | Protein FAM3C-like protein [ <i>Hypsiglena sp. JMG-2014</i> ]                                 | - |
| <b>KAG8123022.1</b>   | Putative Cathepsin B-like protein [ <i>Naja naja</i> ]                                        | - |
| <b>KAG8133728.1</b>   | Putative Myelin P2 protein [ <i>Naja naja</i> ]                                               | - |

|                       |                                                                                       |   |
|-----------------------|---------------------------------------------------------------------------------------|---|
| <b>AFJ51166.1</b>     | Ribonuclease T2-like [Crotalus adamanteus]                                            | - |
| <b>AAC61838.1</b>     | Salmobin [Gloydius halys]                                                             | - |
| <b>XP_039193487.1</b> | Semaphorin-7A [Crotalus tigris]                                                       | - |
| <b>XP_015665591.1</b> | Serum albumin-like [Protobothrops mucrosquamatus]                                     | - |
| <b>XP_026578659.1</b> | Serum albumin-like [Pseudonaja textilis]                                              | - |
| <b>XP_032085079.1</b> | Sortilin-related receptor isoform X1 [Thamnophis elegans]                             | - |
| <b>JAV49066.1</b>     | Sperm acrosome membrane-associated protein 4-like [Agkistrodon contortrix contortrix] | - |
| <b>XP_026559083.1</b> | Sulfhydryl oxidase 1 [Pseudonaja textilis]                                            | - |
| <b>XP_029141937.1</b> | Sushi domain-containing protein 2 [Protobothrops mucrosquamatus]                      | - |
| <b>JAV48980.1</b>     | Syntaxin-7 [Agkistrodon contortrix contortrix]                                        | - |
| <b>JAG66125.1</b>     | Transferrin [Boiga irregularis]                                                       | - |
| <b>XP_015744064.1</b> | Transmembrane protein 72 [Python bivittatus]                                          | - |
| <b>JAG45603.1</b>     | UPF0556 c19orf10-like protein [Crotalus horridus]                                     | - |
| <b>AAX38181.1</b>     | VLAIP-A [Macrovipera lebetina]                                                        | - |
| <b>XP_015669314.2</b> | Werner syndrome ATP-dependent helicase [Protobothrops mucrosquamatus]                 | - |

| <b>Protein family</b> | <b>Count</b> |
|-----------------------|--------------|
| svMP                  | 61           |
| svSP                  | 35           |
| PLA                   | 26           |
| SNACLEC               | 25           |
| CRISP                 | 10           |
| Aminopeptidase        | 9            |
| LAAO                  | 8            |
| Nucleotidase          | 8            |
| svPDE                 | 7            |
| DIS                   | 5            |
| PLB                   | 5            |
| VEGF                  | 3            |
| NGF                   | 1            |
| -                     | 107          |
| <b>TOTAL</b>          | <b>310</b>   |

|                |                                                 |
|----------------|-------------------------------------------------|
| <b>svMP</b>    | Snake Venom Metalloprotease                     |
| <b>svSP</b>    | Snake Venom Serine Protease                     |
| <b>PLA</b>     | Phospholipase A                                 |
| <b>SNACLEC</b> | Snake Venom Lectins                             |
| <b>CRISP</b>   | Cysteine-rich secretory protein                 |
| <b>LAAO</b>    | L-amino Acid Oxidase                            |
| <b>svPDE</b>   | Snake Venom Phosphodiesterase                   |
| <b>DIS</b>     | Disintegrin                                     |
| <b>PLB</b>     | Phospholipase B                                 |
| <b>VEGF</b>    | Snake venom vascular endothelial growth factors |
| <b>NGF</b>     | Nerve growth factors                            |