

Annex 3 – Proteins identified by Proteome Discovery in the venom from *Vipera ammodytes montandoni*

Accession	Description	Family
JAG46882.1	Endoplasmic reticulum aminopeptidase 1-like protein [Crotalus horridus]	Aminopeptidase
JAG65874.1	Xaa-Pro aminopeptidase 2 [Boiga irregularis]	Aminopeptidase
XP_026530513.1	Xaa-Pro aminopeptidase 2 [Notechis scutatus]	Aminopeptidase
XP_015676063.1	Xaa-Pro aminopeptidase 2 [Protobothrops mucrosquamatus]	Aminopeptidase
XP_039186984.1	Xaa-Pro aminopeptidase 2 isoform X1 [Crotalus tigris]	Aminopeptidase
XP_026580740.1	Xaa-Pro aminopeptidase 2-like [Pseudonaja textilis]	Aminopeptidase
AAM45664.1	Ablomin [Gloydius blomhoffii]	CRISP
ACE73576.1	Cysteine-rich secretory protein Da-crbp, partial [Deinagkistrodon acutus]	CRISP
ACE73571.1	Cysteine-rich secretory protein Pg-CRP [Cerrophidion godmani]	CRISP
JAC96631.1	Cysteine-Rich Secretory Protein B [Echis coloratus]	CRISP
AMB36337.1	Cysteine-rich secretory protein CRISP-1 [Vipera ammodytes ammodytes]	CRISP
AWX67630.1	Cysteine-rich secretory protein, partial [Boiga irregularis]	CRISP
CAP74089.1	Cysteine-rich venom protein precursor [Vipera berus]	CRISP
A7X4T8.1	Cysteine-rich venom protein Cau1	CRISP
P85099.1	Cysteine-rich venom protein	CRISP
APB93446.1	Dis-2 [Vipera ammodytes ammodytes]	DIS
CAK12655.1	MLD-containing dimeric disintegrin subunit ml-G2 precursor, partial [Macrovipera lebetina transmediterranea]	DIS
P0C6A5.1	Disintegrin VA6	DIS
3KVE	B Chain B, L-amino acid oxidase	LAAO
AFP89360.1	L-amino acid oxidase [Lachesis muta]	LAAO
BAN82140.1	L-amino acid oxidase [Ovophis okinavensis]	LAAO
AXL95287.1	L-amino acid oxidase 1, partial [Spilotes sulphureus]	LAAO
JAS05317.1	L-amino acid oxidase 1c [Sistrurus tergeminus]	LAAO
JAC96580.1	L-amino acid oxidase B variant 1 [Echis coloratus]	LAAO
QBF53419.1	L-amino acid oxidase LAAO-II [Vipera ammodytes ammodytes]	LAAO
JAA74732.1	LAO-Den-1 [Denisonia devisi]	LAAO
JAA74832.1	LAO-Hem-2, partial [Hemiaspis signata]	LAAO
P0C2D4.1	L-amino-acid oxidase	LAAO
QHR82782.1	Nerve growth factor 1 [Vipera anatolica senliki]	NGF
AAZ75635.1	NGF-AZE1, partial [Azemiops feae]	NGF
XP_007427924.1	5'-nucleotidase [Python bivittatus]	Nucleotidase
AHJ80886.1	5'-nucleotidase, partial [Macrovipera lebetina]	Nucleotidase
5H7W	A Chain A, venom 5'-nucleotidase	Nucleotidase
XP_032071557.1	LOW QUALITY PROTEIN: 5'-nucleotidase [Thamnophis elegans]	Nucleotidase
KAG5858140.1	Snake venom 5' nucleotidase precursor [Bothrops jararaca]	Nucleotidase
XP_026548672.1	Snake venom 5'-nucleotidase-like, partial [Notechis scutatus]	Nucleotidase
-	1708179C phospholipase A2 II	PLA
-	1708179D phospholipase A2 III	PLA
AAZ53184.1	Acidic phospholipase A2 [Daboia russellii limitis]	PLA
AID56660.1	Acidic phospholipase A2 isoform a [Gloydius intermedius]	PLA
CAE47144.1	Ammodytin I1(B') variant [Vipera berus berus]	PLA
CAE47179.1	Ammodytin I1(D) isoform [Vipera ammodytes meridionalis]	PLA
CAE47133.1	Ammodytin I1(E) isoform [Vipera aspis aspis]	PLA
CAE47204.1	Ammodytin I2(A) variant [Vipera aspis aspis]	PLA
1AOK	B chain b, vipoxin complex	PLA

XP_015667444.1	Group 10 secretory phospholipase A2 [Protobothrops mucrosquamatus]	PLA
1RGB	K chain k, phospholipase a2	PLA
AAP41217.1	Phospholipase A2 [Echis carinatus]	PLA
AHJ09527.1	Phospholipase A2 [Ovophis makazayazaya]	PLA
ADG86230.1	Phospholipase A2 [Vipera ursinii]	PLA
ADG86231.1	Phospholipase A2 [Vipera ursinii]	PLA
AAB36472.1	Phospholipase A2 basic subunit, PLA2-I subunit B [Vipera aspis, zinnikeri, venom, Peptide, 122 aa]	PLA
AAB20147.1	Phospholipase A2-2, PLA-2 [Eristocophis macmahoni=leaf-nosed viper, Peptide, 121 aa]	PLA
AAF03251.1	Phospholipase PLA2 precursor [Calloselasma rhodostoma]	PLA
P0DKR3.1	Acidic phospholipase A2 cbialpha	PLA
Q7T3T5.1	Acidic phospholipase A2 daboia toxin B chain	PLA
P04084.3	Acidic phospholipase A2 homolog vipoxin A chain	PLA
P24293.1	Acidic phospholipase A2 PLA-1	PLA
Q9PVE9.1	Acidic phospholipase A2 S1E6-c	PLA
F8QN51.1	Acidic phospholipase A2 Vur-PL3	PLA
B3A0N3.1	Basic phospholipase A2 Bmaj-9	PLA
B5U6Y4.1	Phospholipase A2 homolog	PLA
O93233.1	Phospholipase A2 inhibitor	PLA
JAC96587.1	Phospholipase B [Echis coloratus]	PLB
QBF53421.1	Phospholipase B [Vipera ammodytes ammodytes]	PLB
ETE59578.1	Phospholipase B-like 1, partial [Ophiophagus hannah]	PLB
BAP39929.1	C-type lectin B subunit, partial [Protobothrops elegans]	SNACLEC
JAC96618.1	C-type lectin I [Echis coloratus]	SNACLEC
JAC96617.1	C-type lectin J [Echis coloratus]	SNACLEC
AJO70723.1	C-type lectin-like protein 3B [Macrovipera lebetina]	SNACLEC
AJO70725.1	C-type lectin-like protein 4B [Macrovipera lebetina]	SNACLEC
B4XSY9.1	Snaclec A14	SNACLEC
APB93442.1	Snaclec-5 [Vipera ammodytes ammodytes]	SNACLEC
APB93445.1	Snaclec-8 [Vipera ammodytes ammodytes]	SNACLEC
KAG5858198.1	Snake venom C-type Lectin precursor [Bothrops jararaca]	SNACLEC
AGL45259.1	H3 metalloproteinase precursor 1 [Vipera ammodytes ammodytes]	svMP
CAA66471.1	Lebetase Le3 [Macrovipera lebetina]	svMP
JAV49001.1	Metalloproteinase (type II) 3a [Agkistrodon contortrix contortrix]	svMP
ADI47584.1	Metalloproteinase [Echis carinatus sochureki]	svMP
ADI47638.1	Metalloproteinase [Echis coloratus]	svMP
ADI47647.1	Metalloproteinase [Echis coloratus]	svMP
ADI47653.1	Metalloproteinase [Echis coloratus]	svMP
AJC52543.1	Metalloproteinase F1 precursor [Vipera ammodytes ammodytes]	svMP
AHB62069.1	Metalloproteinase H4-A [Vipera ammodytes ammodytes]	svMP
AMB36350.1	Metalloproteinase of class P-II MPII-2 [Vipera ammodytes ammodytes]	svMP
AMB36351.1	Metalloproteinase of class P-II MPII-3 [Vipera ammodytes ammodytes]	svMP
QBF53415.1	Metalloproteinase of class P-III MPIII-2 [Vipera ammodytes ammodytes]	svMP
QBF53417.1	Metalloproteinase of class P-III MPIII-4 [Vipera ammodytes ammodytes]	svMP
ADI47654.1	Metalloproteinase, partial [Echis coloratus]	svMP
ADI47673.1	Metalloproteinase, partial [Echis pyramidum leakeyi]	svMP
QBF53416.1	Metalloproteinase-like protein of class P-III MPIII-3 [Vipera ammodytes ammodytes]	svMP
QBF53408.1	Mpi-3 [Vipera ammodytes ammodytes]	svMP
Q7LZ61.2	Coagulation factor X-activating enzyme heavy chain	svMP
P83255.1	Snake venom metalloproteinase fibrolase	svMP
B8K1W0.1	Zinc metalloproteinase-disintegrin-like daborhagin-K	svMP

KAG5858153.1	Snake venom metalloprotease precursor [Bothrops jararaca]	svMP
JAA94872.1	Snake venom metalloproteinase (type III) 1 [Crotalus horridus]	svMP
APB93441.1	Svmpl-1 [Vipera ammodytes ammodytes]	svMP
AAX38181.1	VLAIP-A [Macrovipera lebetina]	svMP
XP_015685664.1	Zinc metalloproteinase/disintegrin-like HR1a, partial [Protobothrops mucrosquamatus]	svMP
XP_007430581.1	Ectonucleotide pyrophosphatase/phosphodiesterase family member 3, partial [Python bivittatus]	svPDE
JAA94885.1	Ectonucleotide pyrophosphatase/phosphodiesterase family member 6-like protein [Crotalus horridus]	svPDE
BAN89425.1	Phosphodiesterase [Ovophis okinavensis]	svPDE
JAS05450.1	Phosphodiesterase [Sistrurus miliarius barbouri]	svPDE
XP_013908397.1	PREDICTED: ectonucleotide pyrophosphatase/phosphodiesterase family member 3 [Thamnophis sirtalis]	svPDE
P0DQQ4.1	Venom phosphodiesterase cdcpde	svPDE
W8E7D1.1	Venom phosphodiesterase	svPDE
1OP0	A Chain A, Venom serine proteinase	svSP
AMH40734.1	Kunitz/BPTI inhibitor-2 [Vipera ammodytes ammodytes]	svSP
JAG45243.1	Putative serine carboxypeptidase CPVL-like protein [Crotalus horridus]	svSP
Q6T5L0.2	Alpha-fibrinogenase shedaoenase	svSP
Q9PT41.1	Factor V activator	svSP
P0DP53.1	Snake venom serine protease vasp1	svSP
C0HK18.1	Thrombin-like enzyme collinein-4	svSP
P82981.1	Thrombin-like enzyme contortrixobin	svSP
C0HLA2.1	Thrombin-like enzyme lmrsp-3	svSP
AUS82476.1	Serine endopeptidase [Agkistrodon piscivorus]	svSP
AUS82483.1	Serine endopeptidase [Crotalus atrox]	svSP
AUS82539.1	Serine endopeptidase [Crotalus scutulatus]	svSP
ART88740.1	Serine protease [Azemiops feae]	svSP
ABB76279.1	Serine protease [Lachesis stenophrys]	svSP
ASX97875.1	Serine protease 1 [Gloydus intermedius]	svSP
QHR82810.1	Serine protease 6 [Vipera anatolica senliki]	svSP
QHR82827.1	Serine protease inhibitor 3 [Vipera anatolica senliki]	svSP
ADN04916.1	Serine protease VLSP-1 precursor [Macrovipera lebetina]	svSP
BAN82031.1	Serine protease, partial [Protobothrops flavoviridis]	svSP
JAS04414.1	Serine proteinase 1 [Agkistrodon piscivorus conanti]	svSP
JAS04410.1	Serine proteinase 3 [Agkistrodon piscivorus conanti]	svSP
JAS04407.1	Serine proteinase 6 [Agkistrodon piscivorus conanti]	svSP
AMB36343.1	Serine proteinase SP-2 [Vipera ammodytes ammodytes]	svSP
AMB36344.1	Serine proteinase SP-3 [Vipera ammodytes ammodytes]	svSP
AMB36345.1	Serine proteinase SP-4 [Vipera ammodytes ammodytes]	svSP
AMB36346.1	Serine proteinase SP-5, partial [Vipera ammodytes ammodytes]	svSP
QBF53412.1	Serine proteinase SP-6 [Vipera ammodytes ammodytes]	svSP
QBF53413.1	Serine proteinase SP-7 [Vipera ammodytes ammodytes]	svSP
QBF53414.1	Serine proteinase SP-8 [Vipera ammodytes ammodytes]	svSP
KAG5858160.1	Snake venom serine protease precursor [Bothrops jararaca]	svSP
XP_015671564.1	Snake venom serine protease serpentokallikrein-1 [Protobothrops mucrosquamatus]	svSP
P83942.1	Snake venom vascular endothelial growth factor toxin HF	VEGF
ACN22045.1	Vammin precursor [Vipera ammodytes ammodytes]	VEGF
AXL96619.1	Vascular endothelial growth factor, partial [Ahaetulla prasina]	VEGF
AFJ50239.1	78 kda glucose-regulated protein precursor [Crotalus adamanteus]	-
XP_032080114.1	Acid ceramidase [Thamnophis elegans]	-
XP_034273218.1	Actin, alpha skeletal muscle B-like [Pantherophis guttatus]	-
XP_029141491.1	Alpha-1-macroglobulin-like, partial [Protobothrops mucrosquamatus]	-

XP_015679955.1	Alpha-2-macroglobulin, partial [Protobothrops mucrosquamatus]	-
XP_026577188.1	Alpha-2-macroglobulin-like [Pseudonaja textilis]	-
XP_032067455.1	Alpha-2-macroglobulin-like [Thamnophis elegans]	-
XP_032065554.1	Alpha-2-macroglobulin-like isoform X1 [Thamnophis elegans]	-
CAA01524.1	Ancrod-like protein [Calloselasma rhodostoma]	-
XP_032070269.1	Arylsulfatase B isoform X1 [Thamnophis elegans]	-
XP_026560619.1	Attractin-like protein 1 [Pseudonaja textilis]	-
JAV01855.1	BATXSVMPIII9 [Bothrops atrox]	-
JAV01821.1	BATXSVP15 [Bothrops atrox]	-
XP_032071308.1	Carboxypeptidase D [Thamnophis elegans]	-
JAI13964.1	Cathepsin B-like protein [Crotalus adamanteus]	-
JAG47217.1	Cathepsin D [Crotalus horridus]	-
JAC96615.1	Cathepsin D [Echis coloratus]	-
XP_039215863.1	Cathepsin F [Crotalus tigris]	-
XP_015671628.1	Cochlin [Protobothrops mucrosquamatus]	-
JAG68321.1	Complement factor B-like [Boiga irregularis]	-
QHR82747.1	Cystatin 1 [Vipera anatolica senliki]	-
QHR82750.1	Cystatin 4, partial [Vipera anatolica senliki]	-
XP_007431418.1	Delta-like protein 4 [Python bivittatus]	-
XP_029139438.1	Deoxyribonuclease-2-alpha [Protobothrops mucrosquamatus]	-
XP_039190203.1	Digestive cysteine proteinase 2-like [Crotalus tigris]	-
XP_034269637.1	Digestive cysteine proteinase 2-like [Pantherophis guttatus]	-
XP_015671453.1	Digestive cysteine proteinase 2-like [Protobothrops mucrosquamatus]	-
AFJ49891.1	Dipeptidase 2-like [Crotalus adamanteus]	-
XP_034281324.1	Dipeptidase 2-like isoform X1 [Pantherophis guttatus]	-
XP_039200965.1	Dipeptidyl peptidase 2 [Crotalus tigris]	-
JAC95757.1	Dnaj subfamily C member 3-like protein [Hypsiglena sp. JMG-2014]	-
XP_039225468.1	Endonuclease domain-containing 1 protein-like [Crotalus tigris]	-
XP_032076461.1	Endonuclease domain-containing 1 protein-like isoform X1 [Thamnophis elegans]	-
JAC96588.1	Epididymal secretory protein type E1 [Echis coloratus]	-
JAA97094.1	Exostosin-like 2-like protein [Crotalus horridus]	-
XP_039219335.1	Extracellular matrix protein 1 [Crotalus tigris]	-
JAG67997.1	F11 receptor [Boiga irregularis]	-
AAT91068.1	Factor X activator light chain 2 [Macrovipera lebetina]	-
BAN89449.1	Glutaminyl_cyclase, partial [Ovophis okinavensis]	-
AFE84762.1	Glutaminyl-peptide cyclotransferases [Daboia russelii]	-
XP_015679695.1	Glutathione peroxidase 3 [Protobothrops mucrosquamatus]	-
XP_039209645.1	Golgi apparatus protein 1 isoform X1 [Crotalus tigris]	-
XP_025029897.1	Golgin subfamily B member 1 isoform X1 [Python bivittatus]	-
ETE64070.1	Heat shock 70 kda protein 13 [Ophiophagus hannah]	-
P0DJG8.1	Helicopsin	-
ABI33937.1	Hyaluronidase [Echis ocellatus]	-
A3QVN3.1	Hyaluronidase-1	-
LAB48537.1	Hypothetical protein [Micrurus surinamensis]	-
KAG8135884.1	Hypothetical protein E2320_008871 [Naja naja]	-
KAG8130391.1	Hypothetical protein E2320_016998 [Naja naja]	-
ETE62513.1	Hypothetical protein L345_11729 [Ophiophagus hannah]	-
ETE61833.1	Hypothetical protein L345_12411, partial [Ophiophagus hannah]	-
ETE57954.1	Hypothetical protein L345_16326, partial [Ophiophagus hannah]	-
LAA56372.1	Hypothetical protein, partial [Micrurus corallinus]	-

LAA51009.1	Hypothetical protein, partial [Micrurus corallinus]	-
LAA38728.1	Hypothetical protein, partial [Micrurus corallinus]	-
LAA39086.1	Hypothetical protein, partial [Micrurus corallinus]	-
LAB31279.1	Hypothetical protein, partial [Micrurus spixii]	-
LAB27482.1	Hypothetical protein, partial [Micrurus spixii]	-
LAB50174.1	Hypothetical protein, partial [Micrurus surinamensis]	-
XP_026544971.1	Iggfc-binding protein-like [Notechis scutatus]	-
XP_034279416.1	Iggfc-binding protein-like [Pantherophis guttatus]	-
JAC95348.1	Immunoglobulin J chain [Hypsiglena sp. JMG-2014]	-
XP_015680325.1	Intelectin-1 [Protobothrops mucrosquamatus]	-
XP_039215893.1	Intelectin-like protein [Crotalus tigris]	-
XP_015680317.1	Junctional adhesion molecule A [Protobothrops mucrosquamatus]	-
ETE67131.1	Keratin, type II cytoskeletal 1, partial [Ophiophagus hannah]	-
BAA20283.1	KN-BJ2 [Bothrops jararaca]	-
QHR82774.1	Lysosomal acid lipase/cholesteryl ester hydrolase 1 [Vipera anatolica senliki]	-
XP_039179132.1	Macrophage colony-stimulating factor 1 isoform X1 [Crotalus tigris]	-
XP_032087784.1	Multiple inositol polyphosphate phosphatase 1 [Thamnophis elegans]	-
ETE67243.1	N(4)-(beta-N-acetylglucosaminy)-L-asparaginase, partial [Ophiophagus hannah]	-
XP_039198118.1	N-acetylglucosamine-6-sulfatase isoform X1 [Crotalus tigris]	-
XP_015675633.2	N-acylethanolamine-hydrolyzing acid amidase [Protobothrops mucrosquamatus]	-
JAG67177.1	Nucleobindin-2-like protein [Boiga irregularis]	-
ETE60780.1	Octapeptide-repeat protein T2, partial [Ophiophagus hannah]	-
AAO62996.1	Ophanin [Ophiophagus hannah]	-
XP_015682690.1	Pantetheinase-like [Protobothrops mucrosquamatus]	-
AFJ50884.1	PDI [Crotalus adamanteus]	-
XP_039195464.1	Peptidyl-prolyl cis-trans isomerase B [Crotalus tigris]	-
XP_007436716.1	Peroxiredoxin-4 [Python bivittatus]	-
XP_026534175.1	Plialpha-like protein [Notechis scutatus]	-
XP_013924998.1	PREDICTED: mammalian ependymin-related protein 1 [Thamnophis sirtalis]	-
XP_013926052.1	PREDICTED: netrin-4-like [Thamnophis sirtalis]	-
XP_013911659.1	PREDICTED: vitamin K-dependent protein C [Thamnophis sirtalis]	-
XP_039220671.1	Pregnancy zone protein-like isoform X1 [Crotalus tigris]	-
XP_039186241.1	Prostasin [Crotalus tigris]	-
KAG8134690.1	Putative Acid ceramidase-like protein, partial [Naja naja]	-
KAG8126509.1	Putative Heat shock protein [Naja naja]	-
XP_015746410.1	RAB6A-GEF complex partner protein 2 [Python bivittatus]	-
XP_026532684.1	Renin [Notechis scutatus]	-
JAC96552.1	Renin, partial [Echis coloratus]	-
CAJ55260.1	Renin-like aspartic protease [Echis ocellatus]	-
ADP88558.1	RVV-V gamma-like protein precursor [Daboia siamensis]	-
XP_015676455.1	Semaphorin-7A [Protobothrops mucrosquamatus]	-
XP_034279009.1	Serum albumin-like [Pantherophis guttatus]	-
XP_039208264.1	SH3 domain and tetratricopeptide repeat-containing protein 2 isoform X1 [Crotalus tigris]	-
XP_015684136.1	SLIT and NTRK-like protein 6 [Protobothrops mucrosquamatus]	-
XP_026566963.1	Solute carrier organic anion transporter family member 1B3-like isoform X1 [Pseudonaja textilis]	-
XP_039193074.1	Sulfhydryl oxidase 1 isoform X1 [Crotalus tigris]	-
AAW56633.1	Thrombin-like enzyme 2 [Deinagkistrodon acutus]	-
AAF76378.1	Thrombin-like protein DAV-PA precursor [Deinagkistrodon acutus]	-
AAM19739.1	Tigrin [Rhabdophis tigrinus tigrinus]	-
JAA95244.1	Transferrin [Crotalus horridus]	-

AAPO4484.1	Trypsin inhibitor preproprotein [Vipera ammodytes]	-
CAE47105.1	Vaspin acidic subunit (1) variant [Vipera aspis aspis]	-
CAE47112.1	Vaspin acidic subunit (1) variant [Vipera aspis zinnikeri]	-
XP_007430225.1	Vitamin D3 hydroxylase-associated protein-like [Python bivittatus]	-

Protein family	Count
svSP	31
PLA	27
svMP	25
LAAO	10
CRISP	9
SNACLEC	9
svPDE	7
Aminopeptidase	6
Nucleotidase	6
DIS	3
PLB	3
VEGF	3
NGF	2
-	108
TOTAL	249

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