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Venomics of the Australian eastern brown snake (*Pseudonaja textilis*): detection of new venom proteins and splicing variants

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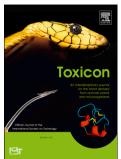
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- 2 venom proteins and splicing variants.

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22

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Abstract

- 24 The eastern brown snake is the predominant cause of snakebites in mainland Australia. Its
- venom induces defibrination coagulopathy, renal failure and microangiopathic hemolytic
- anemia. Cardiovascular collapse has been described as an early cause of death in patients, but,
- so far, the mechanisms involved have not been fully identified. In the present work, we
- analyzed the venome of *Pseudonaja textilis* by combining high throughput proteomics and

transcriptomics, aiming to further characterize the components of this venom. The combination of these techniques in the analysis and identification of toxins, venom proteins and putative toxins allowed the sequence description and the identification of the following: prothrombinase coagulation factors, neurotoxic textilotoxin phospholipase A_2 (PLA₂) subunits and "acidic PLA₂", three-finger toxins (3FTx) and the Kunitz-type protease inhibitor textilinin, venom metalloproteinase, C-type lectins, cysteine rich secretory proteins, calreticulin, dipeptidase 2, as well as evidences of *Heloderma* lizard peptides. Deep datamining analysis revealed the secretion of a new transcript variant of venom coagulation factor 5a and the existence of a splicing variant of PLA₂ modifying the UTR and signal peptide from a same mature protein. The transcriptome revealed the diversity of transcripts and mutations, and also indicates that splicing variants can be an important source of toxin variation.

Keywords: *Pseudonaja textilis*; transcriptome; proteome; toxin; splicing variant.

48 1. Introduction.

Snake bites are an important public health problem in many parts of the rural, developing world, mostly in poor, tropical and subtropical areas (Harrison *et al.*, 2009). There may be as many as 4.5 to 5 million snake bites/year globally, resulting in 2.5 million envenomings, 125,000 deaths and perhaps three times that number with permanent disabilities (Chippaux, 1998). However, an accurate estimation of snake bite envenoming is difficult to establish (WHO, 2007) and these numbers may be much higher, as many estimates rely on hospital returns, which are not available in many areas, and do not capture data for cases that do not present to public health services. The mainstay of treatment for snake bite envenoming is antivenom obtained and purified from hyper-immune plasma, mostly from horses. The value of antivenom is however determined by its ability to effectively neutralize all of the medically relevant toxins in a venom from which is raised, and some toxins may be poorly neutralized

(Gutiérrez et al., 1981; Judge et al., 2006). A better knowledge of venom components and 60 their role in the onset of the pathophysiological effects might circumvent the lack of efficacy 61 of available antivenoms against some components of snake venoms. The currently available 62 cutting-edge proteomic and transcriptomic tools have made such studies possible, enabling 63 the detection of new and/or rare toxins (Calvete, 2013; Paiva et al., 2014) as well as 64 intraspecific ontogenic and geographical variations of the venom (Castro et al., 2013; 65 Madrigal et al., 2012). Such studies have improved our knowledge of venoms and how they 66 vary within species and genera, providing tools to better understand the molecular evolution 67 68 of toxins, as well as to identify potential targets for the design of more effective antisera. The combined proteomic/transcriptomics approach is also relevant to affirm new transcripts as 69 real toxins, as common tissues can express toxin transcripts, even in non-venomous snakes 70 such as pythons (Reyes-Velasco et al., 2014). 71 In the present work, our aim was to characterize the venom gland products from the eastern 72 brown snake Pseudonaja textilis by combining transcriptomic and proteomic studies of the 73 gland and its venom. The eastern brown snake is the predominant cause of accidents in 74 75 mainland Australia (White, 2009), due to its abundance and adaptation to peridomicile, even in urban environments. Its venom has been described as containing toxins that induce 76 77 defibrination coagulopathy, renal failure and microangiopathic hemolytic anemia (White, 2009). Although neurotoxicity is considered to be rare (Barber et al., 2012; White, 2009), a 78 potent presynaptic neurotoxin named textilotoxin has been described (Aquilina, 2009; 79 Pearson et al., 1993) as well as short and long three-finger postsynaptic toxins (3FTx) (Gong 80 et al., 2001, 2000; St Pierre et al., 2007b). The low P. textilis venom yield (Mirtschin et al., 81 2002) associated to low neurotoxins concentrations (Barber et al., 2012) and the usual low 82 venom/victim weight ratio (Mirtschin et al., 1998) can be considered as an explanation for 83 this apparent paradox, although specificity of the toxin towards nerve terminals in a specific 84 prey type should not be discounted as a possible explanation. According to Judge et al. 85 (2006), there is an accumulating body of evidence to suggest that the efficacy of the brown 86 snake antivenom is limited. These authors report that the antivenom does not recognize the 87 low molecular mass protein components of the venoms of P. textilis, P. affinis affinis and P. 88 nuchalis when assayed by western blot, nor was the antiserum able to neutralize the 89 90 contractile response of tracheal nerve/muscle preparations. These observations suggest that either these toxins are poorly immunogenic or that they might not be present in the venom 91 pool used to produce the antiserum. Indeed, according to the World Health Organization 92

- 93 (2007) "Ineffective antivenoms may also be prepared because of an inappropriate selection of
- 94 the venoms used as immunizing mixtures. This illustrates a lack of information on the snake
- 95 fauna of the area or region as well as on the composition and immunochemistry of venoms".
- This highlights the need of further investigation of venom components and how they correlate
- 97 with clinical observations.

- 99 2. Material and Methods.
- 100 2.1. Biological samples.
- The venom gland was extracted from an adult *Pseudonaja textilis* male individual captured at
- Barossa Valley, near Adelaide, South Australia. The venom gland was extracted three days
- after milking to obtain a tissue with a high level of toxin transcript expression, and stored in
- 104 RNA-Later ® (QIAGEN N.V., Netherlands) at -80 °C until RNA extraction. The venom of P.
- 105 textilis used for proteomics and toxin purification was a pool from five captive individuals
- 106 from the same region. The crude venom was lyophilized and stored at -20°C until use. The
- animal was euthanized for tissue collection in accordance with Euthanasia of Animals Used
- for Scientific Purposes guidelines (2001), Australian and New Zealand Council for the Care
- of Animals in Research and Teaching, under the monitoring of the SA Pathology/ CHN
- Animal Ethics Committee, Project Approval 93/12.
- 111 2.2. Venom gland *de novo* transcriptome.
- The venom gland *de novo* transcriptome was obtained by shotgun pyrosequencing (GS-FLX,
- Roche) of a normalized cDNA library (GATC Biotech, Konstanz, Germany). After trimming,
- the resulting reads were aligned and assembled with NewblerTM (Roche). Resulting isotigs
- and singletons were identified and annotated with BLAST2GO (Conesa et al., 2005; Götz et
- al., 2008). All steps were manually eye-checked and fixed when necessary.
- 2.3. Venom 2D-PAGE, in-gel digestion and MS² analysis.
- Prior to use, the venom sample was dissolved to 170 μg/ml in 9 M urea, 2 % ampholytes and
- 70 mM DTT. After 30 min room temperature incubation and centrifugation (45 min, 15000 g)
- the supernatant was removed and frozen at -80°C. The protein mixture was decomplexed by
- 2D-PAGE using a slightly adapted method from previous works (Georgieva et al., 2011;
- Meganathan et al., 2012). The selected spots were collected and in-gel digested with Trypsin
- 123 (Promega, USA). Peptides were analyzed by liquid chromatography (LC) followed by
- electrospray ionization (ESI) and detected in an ion trap mass spectrometry system (Agilent

- 125 1100 LC/MSD-trap XCT series system) (Viala et al., 2014). The most intense ions were
- fragmented by collision-induced dissociation (CID) and MS² spectra were acquired. The
- protein identification was performed based on the public protein database enriched with our in
- house P. textilis transcriptome, using the InChorus multi-algorithmic tool from PEAKS
- 129 (Bioinformatics Solutions Inc., Canada) that integrates PEAKS and MASCOT (Matrix
- Science Inc., USA) identification results. Identity was considered when significant score was
- achieved. All MS/MS assignments and automatic de novo sequencing results were manually
- revised for correctness as well as the quality of the mass spectra of peptides from near-
- threshold identification.
- 134 2.4. Anti-jararhagin western blot.
- 135 Crude lyophilized P. textilis venom was redissolved (2 mg/mL in PBS pH 7), centrifuged and
- $136 \quad 30 \,\mu\text{L}$ of the supernatant were diluted in $10 \,\mu\text{L}$ of non-reducing buffer and submitted to 15%
- SDS-PAGE (Laemmli, 1970). The gel was placed in the electroblot apparatus and transferred
- to nitrocellulose paper in transfer buffer for 90 min at 0.85 mA/cm² (Towbin et al., 1979). The
- 139 nitrocellulose paper was then incubated with polyclonal anti-jararhagin antibodies (diluted
- 140 1:5000). Jararhagin is a P-III metalloproteinase from *Bothrops jararaca* and the antibodies
- were gently provided by Dr. Maísa Splendore Della Casa (Instituto Butantan, São Paulo,
- Brazil). The immunoreactive proteins were detected using peroxidase-labeled anti-rabbit IgG
- and the blot was developed with orthophenyldiamine in the presence of 0.03% H_2O_2 (v/v).
- 2.5. Metalloproteinase cDNA cloning and sequencing.
- The metalloprotease transcript was cloned from a *P. textilis* venom gland cDNA library, built
- using In-Fusion SMARTer cDNA library construction kit (Clontech Laboratories Inc., USA).
- 147 RNA was extracted with Trizol® reagent (Life Technologies, USA) in an RNAse free
- environment. The 20-mers primers (5'UTR: 5'-TTGGAAGCAGAAAGAGATTC-3' and
- 3'UTR: 5'-GTAGGATAAAGACAGATGGG-3') were designed based on conserved regions
- found by aligning metalloproteases UTR sequences from Elapidae, Colubridae and Viperidae
- species, available in public databases (GenBank, NCBI). The 5'UTR and 3'UTR sequences
- were first separated from the open reading frame (ORF), then the UTRs were aligned
- independently (Hall, 1999; Lassmann et al., 2009). PCR reaction was performed using Taq
- DNA polymerase (Biotools B&M Labs S.A., Spain) in the following conditions: 1X 94°C 5
- min + 40X 94 °C 30s, 51°C 30s and 72°C 2min + 1X 72°C 5min (Thermal cycler CG1-96,
- 156 Corbett Research, QIAGEN N.V., Netherlands). The resulting amplification bands were

- excised from the agarose gel, extracted with DNA gel extraction kit (Norgenbiotek, Canada)
- and cloned into pGEM-Teasy® (Promega, USA). E. coli DH5α electrocompetent cells (New
- 159 England Biolabs Inc., USA) were transformed with the ligated plasmids. After ampicillin and
- 160 white/blue selection of the recombinant colonies, plasmids were extracted by miniprep
- 161 (QIAGEN N.V., Netherlands) and clones sequencing was performed on an ABI 3730 DNA
- Analyser with BigDye (Applied Biosystems) and universal forward and reverse M13 primers.
- As the forward and reverse sequences did not overlap, another forward primer Ptint1F (5'-
- ACTTCGGAGTCAGATGAGCC-3') was designed to obtain the missing overlap sequence.
- Resulting sequences were aligned and the final consensus sequence was generated.

- 167 3. Results.
- By combining transcriptomics and proteomics high-throughput techniques in the analysis and
- identification of toxins, venom proteins and putative toxins, a big volume of data was
- generated. The data-mining results were evaluated and discussed in the light of toxinology,
- biochemistry, genetics, biology, and evolutionary knowledge. A previous proteomic analysis
- of this venom was performed by Birrell et al. (2006) in which the following toxins were
- identified: Pseutarin-C (catalytic and non-catalytic subunits), neurotoxic phospholipase A₂
- 174 (PLA₂) textilotoxin subunits and other PLA₂s, 3FTxs, textilinin, the pseudechetoxin-like
- cysteine rich secretory proteins (CRiSP) and an additional unknown protein in venoms, the
- Glucose Regulated Protein 78. Our combined analysis identified the following toxins in the *P*.
- 177 textilis venome: prothrombinase complex coagulation factors, textilotoxin subunits,
- procoagulant PLA₂, short and long 3FTxs, the Kunitz-type protease inhibitor textilinin
- 179 (bovine protease trypsin inhibitors family BPTI), CRiSP and for the first time, a new
- splicing variant of the snake venom coagulation factor V_a (VF5_a), a yet undescribed long
- 3FTx (LNTX-2), C-type lectins (CLect), as well as evidences of lizard toxins from
- 182 Heloderma genus and other toxin candidates such as calreticulin and dipeptidase 2. Some of
- those toxins were identified in a pool of venoms at the isoform level, supported by the
- observation of unique peptides. A venom metalloproteinase (SVMP), a class of toxins poorly
- investigated in elapidae, was detected by western blot, cloned and sequenced. Also, we
- identified at the transcript level a PLA₂ signal peptide switching mechanism driven by
- 187 alternative splicing.
- 188 3.1. Venom gland transcriptome.

- Next Generation Sequencing of the transcriptome generated 104,878 reads (c.a. 37 Mb) with 189 34 to 944 base pairs (bp) (N50 = 466 bp) and 42.25% GC. The assembly generated 1,518 190 isotigs (N50 = 916 bp, longer isotig = 6,179 bp), clustered into 1266 isogroups, and 41,514 191 reads were considered singletons, totalizing 43,032 sequences. The BLASTx resulted in 192 192 transcripts of interest annotated as toxins, related to venom or considered putative new toxins. 193 Coding and truncated toxins transcript/sequences were classified into 3FTx, BPTIs, VF5_a and 194 snake venom coagulation factor X_a (VF10_a), PLA₂, CLect, hyaluronidase, natriuretic peptides 195 (NP), wey acidic proteins (WAP), veficolin, CRiSP, SVMP, calreticulin, transferrin, cobra 196 venom factor (CVF), dipeptidylpeptidase IV and VIP/glucagon-like (vasoactive intestinal 197 peptides). These sequences were individually checked for quality and untranslated regions 198 (UTR), open reading frames (ORF) and their translated amino acid sequences, signal 199 peptides, mutations and alternative splicing were identified. An in house transcriptomic 200 annotated database was compiled and used for the next steps of venomics identification. This 201 Transcriptome Shotgun Assembly project has been deposited at DDBJ/EMBL/GenBank 202 under the accession GDAD00000000. The version described in this paper is the first version, 203 GDAD01000000. 204
- 3.2. Venom proteome. 205
- The 2D gel decomplexed the crude venom into spots with a wide range of molecular mass 206 (from 10 to > 100 kDa) and a wide range of pI (3 to 10) (Fig. 1). 120 spots were collected 207 manually from different regions of the 2D gel and protein clusters. Venom protein 208 identification was successful in 86 spots. After data mining they were classified into eight 209 toxin families (VF5a; VF10a; PLA2: A and B chains from the multimeric PLA2 textilotoxin 210 and "acidic PLA2"; 3FTx; BPTI textilinin; CLect; CRiSP and Heloderma peptides). The 211 InChorus multi-algorithmic identification results are listed in the Supplementary Material. 212 Nineteen sequenced transcripts encoding for VF5_a, VF10_a, Acidic PLA₂, PLA₂ textilotoxin A, 213 CRiSP, LNTx-1, LNTx-2, SNTx, NXS7, textilinin, CLect and calreticulin were identified in 214 215 67 out of the 85 positive spots (Supplementary Material). The long 3FTx (LNTX-2) and the VF5a-3 are new variants that were identified at the protein level.

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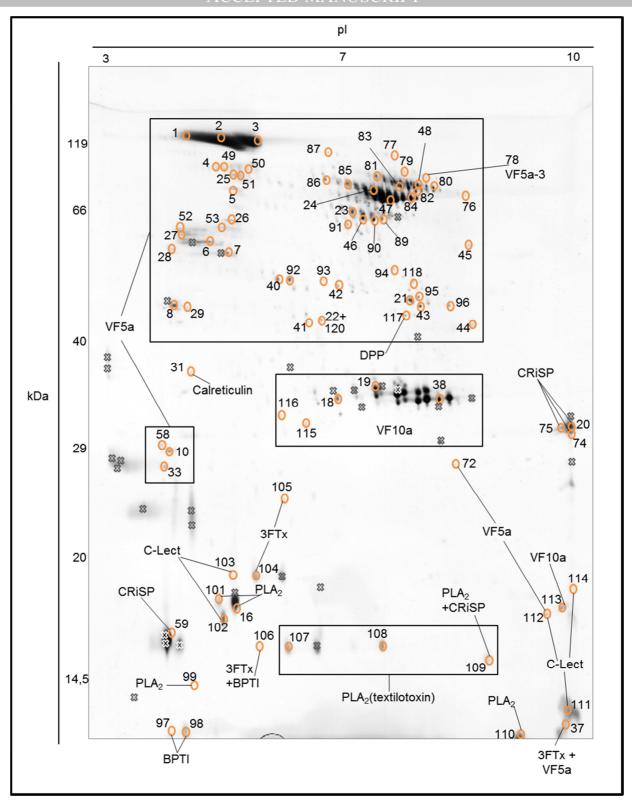


Fig. 1. 2D-PAGE of *Pseudonaja textilis* and the assigned spots (circles). Collected spots without positive match are crossed. Clusters of toxins are highlighted by labeled rectangles. VF5a: Coagulation venom factor 5a; VF10a: Coagulation venom factor 10a; CRiSP: Cysteine rich secretory protein; C-Lect: C type lectins; PLA₂: Venom phospholipase A₂; BPTI: Bovine protease trypsin inhibitor (textilinin); 3FTx: Three-finger toxin; DPP: Dipeptidylpeptidase-2.

3.3. Venom metalloproteinase detection, cDNA cloning and sequencing.

When the crude venom was analyzed by western blot using a polyclonal antibody raised against jararhagin, a single reactive band was detected around 45 kDa (data not shown), indicating the presence of a metalloproteinase. A full transcript was cloned and the sequence revealed to encode a P-III SVMP. The sequence was translated and the protein domains were identified by homology with similar sequences and a DCD motif was observed in the disintegrin domain (Fig. 2). The translated protein has 612 residues and calculated molecular mass (MM) of 68.5 kDa. After trimming out the signal peptide and the propeptide, the putative secreted protein has a predicted mass around 45 kDa and pI around 5.

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TGGAAGCAGAAAGAGATTCCTATCCACCAGTCCAATCCAGGCTCCAAAATGATCCAAGCTCTCTTGGTAACTATATGCTT
                                 MIQALLVTICF
                                  signal peptide
                        120
      90
             100
                    110
                                  130
                                         140
                                                150
                                                        160
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\tt CGCGGTTTTTCCATATCAAGGGAGCTCTATAATCCTGGAATCCGGGAATGTTAATGATTATGAAGTAGTGTATCCACAAA
A V F P Y Q G S S I I L E S G N V N D Y E V V Y P Q K
                    propeptide
                  190
                           200
                                 210
                                        220
            180
----:----|----:|----|----:|----|----:|----|----|----|----|----|----|----|
{\tt AAATGCCTGCATTGCCCAAAGGAGGAGTTCGGAATCCTCAGCCAGAGACCAAGTATGAAGATACAATGCAATATGAATTT}
  \begin{smallmatrix} M \end{smallmatrix} \ P \ A \ L \ P \ K \ G \ G \ V \ R \ N \ P \ Q \ P \ E \ T \ K \ Y \ E \ D \ T \ M \ Q \ Y \ E \ F 
propeptide
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                    270
                           280
                                  290
                                         300
                                                        320
----:----|----:----|----:----|----:----|----:----|----:----|
Q V N G E P V V L H L E R N K E L F S E D Y T E I H Y
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             340
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                           360
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propeptide
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propeptide
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P L K L S D S K S H A I Y K D E N V E E E K T P N C
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propeptide							
	580						
: : TGGGATAACCCAGACTA							
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propeptide					-		
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: : GGTACTTGAAGGTCAAA							
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	ı	llopeptida					
730	740	750	760	770	780	790	800
: : CATGCTATAAAAAGAAA							
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metallopeptidase							
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metallopeptidase							
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metallopeptidase							
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AAATATAATGGCATCTG							
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:CTCGACATG	- : GCACCTGCTT	- : CCTACAACA	1790 - : GATGACCCAG D D P D	- : ATGATGGAAT	- : GGTTGAACCT	- : 'GGAACAAAA	 TGTGGAG
CTCGACATG	GCACCTGCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	- : CCTACAACA P T T	- : GATGACCCAG	- : ATGATGGAAT D G M	- : GGTTGAACCT	- : 'GGAACAAAA	 TGTGGAG
CTCGACATG	GCACCTGCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	- : CCTACAACA P T T	- : GATGACCCAG D D P D	- : ATGATGGAAT D G M	- : GGTTGAACCT	- : 'GGAACAAAA	 TGTGGAG
CTCGACATG S T C Cysteine	GCACCTGCTT T C F	- : FCCTACAACA P T T	- : GATGACCCAG D D P D	- : ATGATGGAAT D G M	- : GGTTGAACCT V E P	- : 'GGAACAAAA G T K	 TGTGGAG C G D
CTCGACATG S T C Cysteine	:GCACCTGCTTTTTCFTCTTCFTTCFTTCTTCTTCTTCTTCTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTT	- : CCCTACAACA P T T 	- : GATGACCCAG. D D P D 	- : ATGATGGAAT D G M 	- : GGTTGAACCT V E P 	- : GGAACAAAA G T K 	 TGTGGAG C G I 1910
CTCGACATG S T C Cysteine TGGTGTGCA	CACCTGCTT T C F rich 1850	- : TCCTACAACA P T T 1860 - :	- :GATGACCCAG. D D P D 1870 - :TGTGCAGACA	- : ATGATGGAAT D G M 1880 - :	- : GGTTGAACCT V E P 	- : GGAACAAAA G T K 	 TGTGGAC C G I 1910
CTCGACATG S T C Cysteine TGGTGTGCA	GCACCTGCTT T C F rich 1850 - :	- : CCCTACAACA P T T 1860 - : AGTGTGTTGA	- : GATGACCCAG. D D P D 	- : ATGATGGAAT D G M 	- : GGTTGAACCT V E P 	- : GGAACAAAA G T K 	 TGTGGAC C G I 1910
CTCGACATG S T C Cysteine TGGTGTGCA	GCACCTGCTT T C F rich 1850	- : CCCTACAACA P T T 1860 - : AGTGTGTTGA	- :GATGACCCAG. D D P D 1870 - : TGTGCAGACA. V Q T	- : ATGATGGAAT D G M 	- : GGTTGAACCT V E P 	- : GGAACAAAA G T K 	 TGTGGAG C G D 1910
CTCGACATO S T C Cysteine TGGTGTGCA V C S Cysteine	GCACCTGCTT T C F rich 1850	PTT 1860	- :GATGACCCAG. D D P D 1870 - : TGTGCAGACA. V Q T	- : ATGATGGAAT D G M 1880 - : GCCTACTGAT A Y *	- : GGTTGAACCT V E P 1890 - : CAAGCACTGG	- : GGAACAAAA G T K 1900 - : GCTTCTCTCA	TGTGGAG C G E 1910 ATTTGAT

Fig. 2. cDNA sequence and translation of the cloned *P. textilis* P-III SVMP. Domains were identified by homology. The highlighted gray box indicates the DCD disintegrin tripeptide motif.

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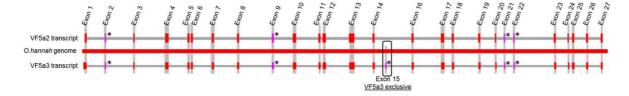
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- 413 4. Discussion.
- 414 4.1. *P. textilis* toxins.
- 4.1.1. Prothrombinase complex: Coagulations factors Va and Xa.
- The venom coagulation factors $VF5_a$ and $VF10_a$ are present in large amounts in some
- 417 Australian Elapidae venom such as Oxyuranus microlepidotus, O. scutellatus and P. textilis

(Bos and Camire, 2010; Masci *et al.*, 1988). In *P. textilis* venom, VF5_a and VF10_a form the prothrombinase complex named Pseutarin-C (Kini *et al.*, 2001), with similar characteristics to the blood plasma prothrombinase complex, essential for blood clot formation by converting prothrombin into thrombin (Mann *et al.*, 1990; Rao and Kini, 2002). The venom prothrombinase complex was recruited to the venom gland after successive gene duplication and rapid mutation accumulation (Minh Le *et al.*, 2005), which enabled the toxins to be secreted already activated, modified to escape the protein C inactivation system and with no need for membrane interaction (Bos *et al.*, 2009; Rao *et al.*, 2003). Pseutarin-C is an effective *in vitro* procoagulant, but has the opposite effect *in vivo* by quickly exhausting the prey's blood plasma prothrombin, resulting in coagulopathy and spontaneous bleeding due to exhaustion of clotting factors (Tibballs *et al.*, 1992, 1991).

*VF5*_a

Two full transcripts encoding for VF5_a were identified (isotigs 199 and 200). The isotig 200 encodes a new isoform, named here VF5a2, similar to the venom prothrombin activator pseutarin-C non-catalytic subunit FA5V_PSETE (UniProt accession number) (Rao *et al.*, 2003), the only one described so far in *P. textilis*. It contains minor mutations in the nucleotide and amino acid sequences, when compared to the previously described toxin FA5V_PSETE, but none at cleavage and known interaction sites (Camire and Bos, 2009). The isotig 199, named here VF5a3, encodes for the isoform VF5a2 increased by a 102 bp insertion at the ORF position 2528. Both VF5_a2 and VF5_a3 sequence were aligned (BLAST) against the *Ophiophagus hannah* genome (Vonk *et al.*, 2013), as no *P. textilis* genomic sequence coding for VF5_a is available in public databases, and both matched entirely and uniquely into the assembly scaffold 988.1 (Accession gb|AZIM01000987.1). The alignment shows that the VF5_a3's 102 bp insertion is an extra exon, named here exon 15 (Fig. 3). Consequently, VF5_a3 might be a splicing variant. More interestingly, this unique additional amino acid sequence, translated from exon 15, was identified in the proteome analysis as described below.



- Fig. 3: Graphical overview of Pseudonaja textilis VF5a2 and VF5a3 transcripts alignment 446 (BLAST) with the king cobra (Ophiophagus hannah) genome scaffold 988.1 (Accession 447 gb|AZIM01000987.1), described by Vonk et al. (2013). An alternative splicing of this gene is 448 demonstrated by the existence of exclusive exon 15 on the VF5a3 transcript (box). 449 Alignments are coded by BLAST score. Exons labeled with * have a similarity score ranging 450 from 80 to 200, unlabeled exons have similarity scores above 200. Horizontal lines connect 451 452 exon sequences. 453 454 In general, the proteome analysis detected VF5_a tryptic peptides in 57 spots (1-8, 10, 21-29, 455 33, 37, 40-53, 58, 72, 76-87, 90-96, 112 and 120). A wide range of mass and pI distribution 456 was observed in the 2D gel, with evident clusters, indicating the diversity of post-translational 457 modifications (PTMs), and possibly proteolysis (Fig. 1). 458 The VF5a isoforms identified were: the Oxyuranus scutellatus (FA5V OXYSU) (Welton and 459 Burnell, 2005), P. textilis venom and blood coagulation factor (FA5V_PSETE and 460 FA5 PSETE) (Rao et al., 2003) and the two new isoforms described in this transcriptome 461 (VF5a2 and VF5a3). The splicing variant VF5a3 contains an extra sequence of 34 amino acid 462 residues (exon 15), after the Gln846 (KSQKLFWKIEESELESRKRIEKDKYIYSEENIKE). A 463 set of two unique peptides IEESELESR and DKYIYSEENIK identified in spot 78 confirm 464 that this product of alternative splicing is indeed translated and secreted in the venom. 465 (Supplementary Material). To our knowledge, this is the first time that an alternative splicing 466 variant of snake venom toxin is detected at the protein level. 467 $VF10_a$. 468 Two isotigs (188 and 189) encoding for VF10_a were identified, with a slight difference only 469 between their 3'UTR regions (17 pb gap). The ORF have 99% of identity with the only one 470 described sequence (Accession: FAXC PSETE) (Filippovich et al., 2005), but no mutations 471 were found in known active sites. VF10_a was identified in five spots (18, 38, 113, 115 e 116) 472 from a single cluster with c.a. 35 kDa and pI between 6 and 8.5 (Fig. 1). 473
- 474 4.1.2. Phospholipases A_2 .
- PLA₂s are ubiquitous enzymes in nature (Kini, 2003). Snake venom PLA₂s were recruited to
- 476 the venom gland and lost their original function (Ohno et al., 1998). The great diversity of

venom PLA₂s is best illustrated by the many different neurotoxic, myotoxic, cardiotoxic, haemolytic, haemorrhagic, hypotensive, anticoagulant and other functions (Kini, 2003). The most studied *P. textilis* PLA₂s are the textilotoxin subunits (A to D), which form a potent heterohexameric presynaptic neurotoxin (Aquilina, 2009; Pearson *et al.*, 1993). Another PLA₂ with apparent procoagulant activity has also been described (Armugam *et al.*, 2004).

Many transcripts were identified as snake venom PLA₂ (Table 1). The "acidic PLA₂" was found in isotigs 824, 263 and 264. Isotig 824 ORF is identical to the "acidic PLA₂ 1" (Accession: PA2A1_PSETE) (Armugam *et al.*, 2004). The isotigs 263 and 264 encode for the same mature protein, with 99% identity to the "acidic PLA₂ isoform 2" (Accession: PA2A2_PSETE) (Armugam *et al.*, 2004), and were named here as "PLA₂ isoform 3" and "PLA₂ isoform 4", respectively. Isotig 264 5'UTR and signal peptide nucleotide sequences are different from the 263's (and consequently the signal peptide first 9 aa residues).

Table 1: Venomic PLA₂ identification details. The numbering of the spots (proteome) and the isotigs (transcriptome) are cited in columns 2 and 3 respectively. ND: not detected. Hit description: name obtained from SwissProt database. IA and IB are subclasses of class I PLA₂, depending on the presence or absence of the pancreatic loop.

Hit description	Spot	Istotig	Hit's activity	Pancreatic loop
Basic PLA ₂ CM-II	90, 91, 99	ND	Myonecrotic and neurotoxic	
textilotoxin A chain	107, 100	814		No (IA)
textilotoxin B chain	107, 109	883	Hexameric	
textilotoxin C chain	NID	819	neurotoxin	
textilotoxin D chain	ND	800		
Acidic A2 1	ND	824		Vac (ID)
Acidic A2 2	16, 101, 110	263	pro-coagulant	Yes (IB)
Acidic A2 2	10, 101, 110	264		

When carefully analyzed, aligning the nucleotide sequences of isotigs 263 and 264 with the available gene sequences of this PLA₂ (GenBank Accession: AY027495.1) (Armugam *et al.*, 2004), the isotig 264 was identified as a new splicing variant, with a different 5'UTR and a new start codon inside the usual first intron (Fig. 4). Interestingly, this new signal peptide matches with *Micrurus fulvius* (e.g. Accession: U3F5A1_MICFL) and *Bungarus multicinctus* (e.g. Accession: Q8AXW0_BUNMU) PLA₂ signal peptide. We identified unique peptides from this acidic PLA₂ in spots 16, 101 and 110.

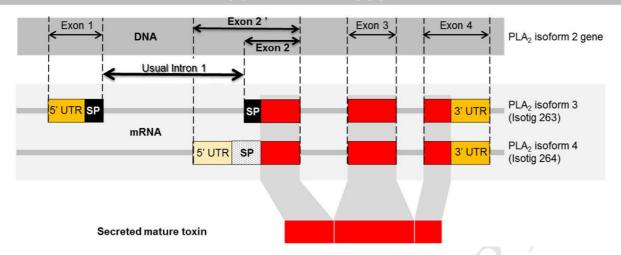


Fig. 4: Graphical overview of the alternative splicing occurring between two PLA₂ transcripts. The alignment with the gene, described in *Pseudonaja textilis* (Armugam *et al.*, 2004), highlights an alternative splicing occurring at exon 2. Although the alternative splicing generates two different signal peptides (SP), the secreted mature toxin is the same. UTR: untranslated region.

Textilotoxin was also identified in the venome. Isotigs 814, 883, 819 and 800 encode for subunits A, B, C and D respectively, which translated amino acid sequences are all 100% identical to those already described in the literature, except for the isotig 883 (named here as subunit B isoform 2) with two substitutions out of the 121 residues. These data indicate a strong positive selection upon those toxins. The textilotoxin B subunit nucleotide sequence is being described for the first time. The proteomics identified textilotoxin A and B subunits in spots 107 to 109.

A tryptic peptide with a sequence only found in the "basic PLA₂ CM-II" (UniProt Acession number: PA2B2_NAJMO) described in *Naja mossambica* (Joubert, 1977) was identified in the spots 90, 91 and 99. CM-II causes myonecrosis when injected intramuscularly, causes neuromuscular blockade with a gradual contracture and a decreased sensitivity to ACh and KCl (Lin *et al.*, 1987).

4.1.3. Three-finger toxins:

The 3FTx are non-enzymatic polypeptides with 60 to 74 as residues. They are commonly known as 3FTx due to the three finger-like loops emerging from a hydrophobic core and linked together by four conserved disulfide bonds. Despite this similar structure, 3FTx can

have different biological activities including the blockade of nicotinic acetylcholine receptors, distinct muscarinic acetylcholine receptor subtypes, L type Ca²⁺ channels, inhibition of acetylcholinesterase, platelet aggregation, or as analgesic and membrane pore formation agents (Hegde *et al.*, 2009; Kini and Doley, 2010; Utkin, 2013). 3FTx are common component of elapid snake venoms and are often responsible for their lethal effects. The α-neurotoxin antagonists of postsynaptic nicotinic acetylcholine receptors are the most studied 3FTx. They promote paralysis, respiratory failure and death (Servent *et al.*, 1997). The molecular accelerated evolution, classification and nomenclature of these toxins are subject to debate (Doley *et al.*, 2009; Sunagar *et al.*, 2013). Although a huge diversity of genes and transcripts have been described (Gong *et al.*, 1999; Jackson *et al.*, 2013; St Pierre *et al.*, 2007b; Tyler *et al.*, 1987), the usual simplified short-chain neurotoxin (SNTx) or long-chain neurotoxin (LNTx) classification is used here (Hegde *et al.*, 2009).

This toxin family presented the greatest number of isotigs and isogroups in the transcriptome, after assembly. A closer analysis into the sequences ORFs and UTRs enabled the subclassification of isogroup 2 into three more subgroups (Table 2).

Table 2: Diversity of 3FTx transcripts of the *P. textilis* venom gland transcriptome. Isogroups are derived from assembly. Subgroups were assigned based on sequence similarity. Blast2Go annotations are based on public NCBI protein database annotations. NA: Not Available.

Isogroup	Subgroup	Istotig	Blast2Go annotation	Note
2	1	67, 68, 72, 74, 76 to 79	Short neurotoxin precursor	SNTx isoforms
		75	NA	Deletion nonsense
	2	60 to 62	Short neurotoxin precursor	Premature stop codon
	3	57 to 59	Uncharacterized transposon- derived protein	Loss of signal peptide
		63 to 66, 69 to 71, 73	Short neurotoxin precursor	by insertion
27	4	185 and 187	Short neurotoxin precursor	New SNTx
		186	NA	Deletion nonsense
23	5	174 and 176	Long chain neurotoxin	LNTx-1 (100% similar)
	Y	175	precursor	LNTx-1 new isoform
				LNTx Pseudonajatoxin
83	6	295 and 296	LNTx-1 precursor	b homologue
				(100% similar)
1076	7	1328	Long neurotoxin	LNTx-2 (new)
6	8	112 to 118	NA	Non-coding, with gene introns.

- The isogroups 2 and 27 are clusters of transcripts encoding for SNTx. Isotig 74 is the exact
- NXS7 variant (Gong et al., 2000) and isotigs 67, 68, 72 and 76 to 79 encode for new SNTx
- isoforms. Isotigs 185 and 187 encode for new SNTxs similar to 3FTxs from Pseudonaja
- 547 modesta "Pse-290" (Jackson et al., 2013) (~90%) and Oxyuranus microlepidotus "3FTx-
- 548 Oxy6" (Fry et al., 2008) (84%). Other transcripts had nonsense mutations (e.g.: insertions,
- deletions, intron insertions) suggesting that the 3FTx gene family undergoes wide-ranging
- alternative splicing and deserves further investigation.
- The previously described "LNTx-1" (St Pierre et al., 2007b) and an isoform were identified in
- isogroup 23. The isogroup 83 encodes for "Pseudonajatoxin b homologue" (Gong et al.,
- 553 2001) and isotig 1328 is a new LNTx transcript, named here "LNTx-2", with 93% translation
- similarity to a Pseudonaja modesta LNTx (Accession: R4G319_9SAUR) (Jackson et al.,
- 555 2013), 85% to α-neurotoxin "LNTx 20" from Drysdalia coronoides (Accession:
- 3FL20_DRYCN) (Chatrath et al., 2011) and only 78% similar to "Pseudonajatoxin b
- 557 homologue". Some singletons showed truncated sequences of diverse LNTxs.
- The proteome analysis identified SNTx variants in spots 37, 105 and 106, namely "NXS2",
- "NXS3" and "NXS7". The "LNTx-1" was identified in spot 37 and the new "LNTx-2" (isotig
- 560 1328) was identified in spot 104 (Supplementary Material).
- 4.1.4. Serine protease inhibitors peptides: Kunitz-like and WAP.
- Kunitz-like serine protease inhibitors (I2 family), also known as Bovine Protease Trypsin
- Inhibitors (BPTI), are present in a great variety of tissues in almost all organisms (except for
- Archeae and Fungi). A variety of BPTIs with different activities are found in venoms of
- different creatures, ranging from anemones (e.g. Schweitz et al., 1995), wasps (e.g. Hisada et
- 366 al., 2005), spiders (e.g. Chung et al., 2002), shrews (e.g. Kita et al., 2004), scorpions (e.g.
- 567 Chen et al., 2012), viperid (e.g. Cheng et al., 2012) and elapid (e.g. Masci et al., 2000)
- snakes. Textilinin, a selective and reversible inhibitor of plasmin was previously described in
- 569 P. textilis venom, and has applications in the control of blood clotting (Earl et al., 2012;
- 570 Masci et al., 2000).
- Among the transcripts, isotig 173 was the only one with a functional venom BPTI sequence,
- identical to "textilinin-4" (Acession: VKT4 PSETT) (Filippovich et al., 2002). Others have
- 573 nonsense mutations in the beginning or the end of the transcript (e.g. isotig 171 and 172). The
- 574 proteomic analysis identified textilinin 1, 2 and 3 at the isoform level because of unique

575 peptides at spots 97, 98 and 106, but no other kind of serine protease inhibitors were 576 identified in this venom.

577 Since there is an interest in understanding the structure, function and pharmacology of 578 textilinin and other venom serine-protease inhibitors as well as the molecular evolution mechanism of toxin recruitment in the venom gland, it is important to survey all sequences 579 related to this family. A great variety of BPTI transcripts were already described in elapid 580 venom gland transcriptomes and some of them present an additional BPTI or whey-acidic-581 protein (WAP) domain (Jackson et al., 2013; St Pierre et al., 2008). WAP are peptides from 582 the I17 serine proteases inhibitors family, found in large amounts in many mammals milk, and 583 contain a domain found in many other proteins (Bingle et al., 2002; Hennighausen and Sippel, 584 1982). Snake waprins were isolated from Oxyuranus microlepidotus and Naja nigricollis 585 586 venom, and displayed antimicrobial activity but no haemolytic, no toxicity in mice and no elastase and cathepsin G inhibition (Nair et al., 2007; Torres et al., 2003). WAP transcripts 587 were also sequenced from snake venom glands, such as textwaprin from P. textilis (Fry et al., 588 2008; St Pierre et al., 2008) but the function in the venom is still unknown. Transcripts of 589 590 fused Kunitz inhibitors and WAP domains (KuWAP) were described in Sistrurus catenatus edwardsii (Pahari et al., 2007) and Suta fasciata (Jackson et al., 2013) venom gland, but with 591 no further characterization. In humans the Epididymal Protease Inhibitors (EPPIN) containing 592 a BPTI and a WAP domain are found in spermatozoa surface and have an antimicrobial 593 activity and contraceptive function (Wang et al., 2007; Yenugu et al., 2004). In snake venom 594 glands, both inhibitors seem to have a common evolutionary pathway as they share signal 595 596 peptide and the first exon (Jackson et al., 2013; St Pierre et al., 2008). In this transcriptome, a great variety of BPTI transcripts (isotigs and fragments encoded on singletons) were 597 identified (mono, double and triple domain as well as WAPs and fused BPTI/WAP) and 598 knowledge of their sequences can help to better understand this family of protease inhibitors 599 in snakes and their toxin version in their venom. Surprisingly, a partial sequence of a double 600 BPTI domain serine protease inhibitor similar to those found in leech (Simakov et al., 2013) 601 and tick (Macedo-Ribeiro et al., 2008) saliva was identified in singleton BC91X. In the 602 Rhipicephalus microplus saliva, the Boophilin-H2 (Acession: BOOH2 RHIMP) is a double 603 BPTI domain serine protease inhibitor that inhibits the host blood clotting as the animal feeds 604 605 (Macedo-Ribeiro et al., 2008). Further genetic cloning and venom characterization should elucidate the function of this inhibitor in venom. 606

607 4.1.5. C-type lectins.

- The most commonly described C-type lectins (CLects) in Elapidae are galactose or mannose
- 609 binding with ~26 kDa and usually structured into homo or heterodimers (Abreu et al., 2006;
- Du et al., 2002; Earl et al., 2011; Zha et al., 2001). C-type lectins are common body proteins
- and the diversity of transcripts observed in the venom gland might be related to house-
- keeping functions, thus, abundance of transcript may not equate to toxin diversity per se. In
- fact, between the diversity of CLects sequenced, only the isogroup 13 set of transcripts was
- 614 identified in the proteome analysis in spots 102, 103, 111, 112 and 114. This isogroup is
- formed by 4 variants of a galactose-binding CLect (isotigs 145 to 148, named "Venom C-type"
- lectin galactose binding variant" numbered from 3 to 6, respectively) differing from each
- other by some point mutations, not involved in the QPD sugar binding site or metal binding
- 618 regions. Some other galactose binding CLect described in elapid snake venoms were also
- 619 identified in this proteome. CLects are being described for the first time at the protein level on
- 620 P. textilis venom.
- 621 4.1.6. CRiSP.
- Venom Cysteine Rich Secretory Proteins (CRiSPs) have conserved sequence between
- 623 Colubridae, Viperidae and Elapidae species, with ~23kDa and 16 structural cysteines.
- Although the 3D structure is resolved, the active sites and function are poorly elucidated
- 625 (Heyborne and Mackessy, 2009). The first venom CRiSP described was "helothermine" from
- 626 the venomous lizards *Heloderma*, which modifies the ionic channels in mice causing lethargy,
- partial paralysis of the hind limbs and hypothermia (Mochca-Morales et al., 1990; Morrissette
- 628 et al., 1995).
- 629 Pseudechetoxin, a CRiSP from Pseudechis australis venom inhibits smooth muscle
- contraction by blocking cyclic nucleotide-gated ion channels (Yamazaki and Morita, 2004).
- In other species such as *P. textilis*, a pseudechetoxin-like sequence was described but has not
- been characterized (St Pierre et al., 2005).
- The transcriptome revealed a unique truncated sequence (isotig 418) of CRiSP. An adenosine
- 634 homopolymer might have impaired the exact sequence signal during the pyrosequencing
- resulting on the insertion of an artificial stop codon at the ORF position 639. However, a more
- careful analysis of the sequence allowed us to observe the frame shift and, after correction, to
- 637 identify the full sequence of a pseudechetoxin-like toxin. CRiSP peptides were identified in
- 638 spots 20, 74, 75 and 109 (Fig. 1).
- 4.1.7. Snake Venom Metalloproteinases (SVMPs).

- Snake venom metalloproteinases are a polygenic family of enzymes, whose sequence,
- structure and function are well characterized. Most viper venoms contain an abundance of
- 642 SVMPs that can be responsible for bite site haemorrhage, oedema, myonecrosis, blister
- 643 formation, dermo-necrosis and inflammatory reactions. Systemic effects of SVMPs in snake
- venoms include coagulopathy, fibrinolysis, apoptosis induction, and activation of factor X and
- prothrombin (Markland and Swenson, 2013).
- The transcriptome revealed a variety of truncated sequences of a P-III class SVMP. These
- variations of non-sense mutations can be interpreted as (1) individual genetic variation of the
- specimen, (2) negative selection of this toxin (loss of trophic adaptation) in the species or
- population, or even (3) a pre-adaptation or neo-functionalization process. Although the
- venomics analysis did not provide reliable evidences of SVMP in the venom, western blotting
- revealed an immunoreactive band against anti-jararhagin polyclonal antibodies indicating the
- presence of P-III SVMP. Furthermore, a full P-III SVMP transcript was cloned and sequenced
- 653 from a venom gland cDNA library. All those truncated sequences identified in the
- 654 transcriptome match to this cloned P-III SVMP cDNA. The sequence similarity analysis
- 655 (BLAST) of the cloned SVMP shows a higher similarity to related species (98 to 62% of
- identity with Elapidae) than to other venomous snakes (62 to 52% of identity with Viperidae).
- 4.2. Transcripts of interest not identified in the venom.
- Some transcripts identified in the transcriptome as toxins or putative toxin transcripts were
- not identified at the protein level in the venom. This might be explained by the fact that (1)
- not all transcripts are translated into proteins, and (2) when translated it is not necessarily
- present in the venom, or (3) individual and regional genetic and epigenetic variations can
- result into different patterns of expression. Additionally, biased results derived from technical
- limitations (e.g. 2D-PAGE limitation, spot sampling and peptide ionization issues) can lead to
- underrepresentation of some venom components. Even so, we discuss these toxin transcripts
- families below.
- 666 4.2.1. Natriuretic peptides.
- Venom NPs are homologous to physiological ones and act by decreasing the blood volume in
- 668 the prey vessels, inducing immediate hypotension, impairing locomotion and facilitating
- predation (Vink et al., 2012). A C-terminal fragment of a new isoform of the "PtNP-a" (St
- Pierre et al., 2006) was identified in the isotig 227, called "PtNP-b" as well as a fragment of a
- new NP in isotig 1037.

- 672 4.2.2. Cobra venom factor.
- The CVF is a structural and functional analogous to the C3b complement system (Fritzinger
- 674 et al., 1994). It role in envenomation is not yet clear, nevertheless it has been used for the
- 675 therapeutic depletion of the immune system in humans (Vogel and Fritzinger, 2010). Partial
- sequences were identified in singletons A5YBF, A9LX7 e AWSDT.
- 677 4.2.3. Hyaluronidase.
- 678 The isogroup 46 encodes for a hyaluronidase, an enzyme responsible for degrading the
- 679 hyaluronan, a glycosaminoglycan component of the extracellular matrix in connective tissues
- and blood vessels. Thus, it role in envenomation is primarily described as a venom spreading
- factor (Kemparaju et al., 2009). Isotig 221 encodes a snake venom hyaluronidase with high
- sequence identity (>80%) to hyaluronidases from *Micrurus fulvius* (Margres et al., 2013) and
- 683 Ophiophagus hannah (Vonk et al., 2013). The isotig 222 encodes an unusual truncated
- version, already described in *Echis*, *Cerastes* and *Bitis* species (Harrison *et al.*, 2007).
- 685 4.2.4. Transferrin.
- 686 Transferrins have been identified in the venom proteomes of other Australian elapids
- 687 including *Pseudechis australis* (Georgieva et al., 2011) and *P. guttatus* (Viala et al., 2014).
- Antimicrobial activity was detected and suggested as a probable activity in the venom
- 689 (Georgieva et al., 2011).
- 690 4.2.5. Dipeptidylpeptidase-IV.
- Dipeptidylpeptidases-IV (DPP4) were previously described in snake venom and cloned from
- venom glands (Faiz et al., 1996; Gasparello-Clemente and Silveira, 2002; Ogawa et al., 2006;
- 693 St Pierre et al., 2007a). They may act by interfering in prey homeostasis by inactivating
- 694 peptides like glucagon or acting upon the immune or neuroendocrinous system (Ogawa et al.,
- 695 2006), or simply processing zymogen toxins. Truncated and fragmented isotigs and singletons
- were identified.
- 697 4.2.6. Veficolin.
- Veficolins are venom ficolins, first described in *Cerberus rynchops* (Homoplasidae) venom as
- 699 ryncolins, which contains an N-terminal collagen domain and C-terminal fibringen domain
- 700 (Ompraba et al., 2010). Ompraba et al. (2010) identified this protein in the venom by MS
- 701 considering "hidroxylation of proline" as a variable post-translation modification. No ficolin
- 702 was identified in *Pseudonaja* venom using this approach. The singleton AUJZW was

- 703 identified as a fragment of transcript encoding for veficolin, similar to ryncolins. Other
- singletons with truncated sequences were also identified.
- 705 4.3. Proteins of interest: venom proteins and toxin candidates.
- 706 4.3.1. VIP/Glucagon-like peptides and *Heloderma* lizard toxins.
- 707 Peptides derived from four toxins found in Gila-monster lizards (*Heloderma*) were identified
- in P. textilis venom proteome: "exendin-2 long" (Accession: EXE2_HELSU), "exendin-4"
- 709 (Accession: EXE4 HELSU), "helokinestatin-1" (Accession: HKS HELHO) and "kallikrein-
- 710 toxin" (Accession: C6EVG4_HELSC) (Supplementary Material). Exending form a peptide
- 711 family similar to secretin hormones (Irwin, 2012). "Exendin-2 long" is an intestinal
- vasoactive peptide that induces hypotension in prey mediated by the relaxation of the
- 713 myocardium (Tsueshita et al., 2004) and "exendin-4", also hypotensive, mimetizes glucagon
- which led to the development of the antidiabetic Byetta ®, an insulin production stimulator
- 715 (Furman, 2012). "Helokinestatin-1", derived from a decapeptide, antagonizes the bradykinin
- vasodilatation activity on B2 receptors of bradykinin (Kwok et al., 2008). Finally, "kallikrein-
- 717 toxin", described at the cDNA level (Fry et al., 2010), is a kallikrein serine protease of
- 718 unknown activity, with a sequence similar to gilatoxin (Utaisincharoen et al., 1993).
- 719 Gilatoxin, similar to batroxobin (Itoh et al., 1987) and crotalase (Henschen-Edman et al.,
- 720 1999), has kallikrein activity and can act as a haemorrhagic potentiator of *Heloderma* toxins
- 721 (Utaisincharoen et al., 1993). The origin of those peptides in the venom is unknown, as no
- 722 transcripts were identified in the transcriptome. No evident spot clustering was observed in
- 723 the 2D-PAGE for these toxins and the identification of the peptides was always associated
- with other toxins (VF5_a, PLA₂, VF5_a+ PLA₂ and CRiSP).
- 725 4.3.2. Calreticulin.
- Five peptides from spot 31 corresponded to calreticulin, also identified in the transcriptome
- 727 (isotig 391, with 82% of identity with humans). This calreticulin sequence contains a
- 728 Concanavalin A-like lectin/glucanases domain (Con A-like) followed by a
- 729 calreticulin/calnexin P domain. InterPro resource (Mitchell et al., 2014) predicted the whole
- 730 sequence as non-cytoplasmic and without transmembrane motifs, but its function in the
- venom is unknown. Toxic activity was previously reported in Con A-like domain containing
- proteins from bacteria, viruses, lion-fish and snakes: e.g. *Clostridium* neurotoxins responsible
- 733 for the neuroparalytic effects of botulism and tetanus (Swaminathan and Eswaramoorthy,
- 734 2000); *Pseudomonas* exotoxin A virulence factor (arrest of protein synthesis in eukaryotic

- cells) (Wedekind et al., 2001); Vibrio cholerae neuraminidase (Crennell et al., 1994) and the 735 rotaviral outer capsid protein VP4 (cell attachment and membrane penetration) (Dormitzer et 736 al., 2002); the Dendrochirus zebra (former Pterois) lion-fish toxin (UniProt Accession: 737 A0A068BD83 DENZE); and finally, ohanin and thaicobrin are neurotoxins found in snakes 738 (Ophiophagus hannah and Naja kaouthia respectively) that induce hypolocomotion and 739 hyperalgesia in mice (Pung et al., 2005). Additionally, Kuwabara et al. (1995) show that tick 740 salivary secreted CRT binds to coagulation factors without affecting their coagulant 741 properties and interacts with the endothelium to stimulate release of nitric oxide and inhibit 742 743 clot formation.
- 744 4.3.3. Dipeptidase 2.
- The identification of dipeptidase-2 in the proteome was unexpected. Based on 3 peptides in 745 spot 117 (Fig. 1, Supplementary material), the peptides matched with DPP-2 described in the 746 O. hannah genome (Uniprot Acession: V8NS94_OPHHA) (Vonk et al., 2011). To our 747 knowledge, there is no description of such a venom component in lizard or snake databases, 748 except for a transcript from C. adamanteus venom gland (Acession: J3SEA2_CROAD) 749 (Rokyta et al., 2012). DPP2 are M19 membrane peptidases with a renal dipeptidase active 750 site. Those peptidases are involved in renal metabolism of glutathione and their conjugates 751 (Adachi et al., 1993). O. hannah and C. adamanteus dipeptidase-2 have a predicted N-752 terminal signal peptide but also a transmembrane region at the C-terminal region, indicating 753

its original membrane function in the venom gland cells.

755

- 756 5. Conclusion.
- We reported here the first full venomic study of the medically important Australian snake 757 758 Pseudonaja textilis. The combination of proteomics and transcriptomics allowed us to distinguish isoforms, a common limitation in proteomics due to limited tryptic peptide 759 sequence coverage (Birrell et al., 2006). The venom gland de novo transcriptome analysis 760 revealed 113 different toxin transcripts, including 17 new sequences, such as the textilotoxin 761 B subunit so far described only at the protein level and most of the toxins UTRs, and splicing 762 variants such as the VF5a-3 (with an additional exon) and the "acidic PLA2 isoform 4" (with 763 an alternative signal peptide). The new splicing variant VF5a-3 and a new transcript of long 764 neurotoxin LNTx-2 were identified at the protein level. Additionally, a P-III SVMP was 765 cloned and detected in the venom by western blot. Based on those new observations upon 766

767	toxin transcripts splicing variants, we suggest that the alternative splicing is an important
768	source of variation within toxin families, therefore, genomic sequences and phenotypic
769	identification of those variants should have more attention in venomics works.
770	
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777	antibodies.
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770	7. References.
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Highlights

- *Pseudonaja textilis* venome was analyzed by combining transcriptome and proteome.
- A novel coagulation factor 5a splicing variant was detected by both approaches.
- A new long three finger toxin was detected by both approaches.
- Two identical PLA₂s with different UTRs and signal peptides were sequenced.

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Ethical statement.

The animal used in this work was euthanized for tissue collection in accordance with Euthanasia of Animals Used for Scientific Purposes guidelines (2001), Australian and New Zealand Council for the Care of Animals in Research and Teaching, under the monitoring of the SA Pathology/ CHN Animal Ethics Committee, Project Approval 93/12.

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Supplementary Material: Summary table of *Pseudonaja textilis* venom MS/MS identification on 2D-PAGE spots. Data generated by PEAKS+MASCOT (InChorus) analysis against reptile and toxin public database, enriched with the in house *P. textilis* venom gland transcriptome. (+15.99): Oxidation of methionine. VF5a: Venom coagulation factor 5a; VF10a: Venom coagulation factor 10a; PLA₂: Phospholipase A2; CRiSP: Cystein-Rich Secretory Protein; 3FTx: Three-finger toxin; HKS: Helokinestatin; EXE2: Exendin-2; EXE4: Exendin-4; BPTI: bovine protease trypsin inhibitors; CLect: C-lectin; DPP: dipeptidase; m: mass; z: charge; Cov.: Coverage.

Accession FASV_PSETE	Score (%) 99.2 Venom	Top 10 hit description		Cov (0/)		
TADY_FOLIE		n prothrombin activator pseutarin-C non-catalytic sub	Hit species punit Pseudonaja textilis	Coverage (%)	Peptide K.AQYLDNFSNFIGK.K	m/ 758
	33.2 Velion	n prothrombin activator pseutarin-C non-catalytic sub	ounit Pseudonaja textilis	17		
					K.SNVMYTLNGYASDR.T	795
					K.WSEGSSYSDGTSDVER.L	881
					R.GEVGDSLIIYFK.N	670.
					R.EYVLMFSVFDESK.N	797
					K.WTVLDTDEPTVK.D	702
					K.AVEPGQVYTYK.W	627.
					K.ADVEQHAVFAVFDENK.S	607
					R.DALSGLLGPTLR.G	606
					R.LSESDLTFKK.I	584
					K.ELGLIDDEGNPIIQPR.R	89
					K.WLISSLVAK.H	508.
					K.NFATQPVSIHPQSAVYNK.W	667.
					R.EYHIAAQLEDWDYNPQPEELSR.L	901
					K.AQYLDNFSNFIGKK.Y	548.
					R.LDDAVPPGQSFK.Y	637.
					K.SWYLEDNIKK.Y	648
					K.DAEGAIYPSDPK.E	631
					K.LYHSAVDMTR.D	398
					R.LSESDLTFK.K	520
					R.GILGPVIK.A	398
						584.
					K.SWYLEDNIK.K	
					K.LYHSAVDM(+15.99)TR.D	403
					R.DTVTIVFK.N	461
isotig00199	99.2	VF5a-3	Pseudonaja textilis	28	K.AQYLDNFSNFIGK.K	758
isotig00200	99.2	VF5a isoform 2	Pseudonaja textilis	17	K.SNVMYTLNGYASDR.T	795
					K.WSEGSSYSDGTSDVER.L	881
					R.GEVGDSLIIYFK.N	670
					R.EYVLMFSVFDESK.N	797
					K.WTVLDTDEPTVK.D	702
					K.AVEPGQVYTYK.W	627.
					R.AVEPGQVYTYK.W R.DALSGLLGPTLR.G	
						606
					R.LSESDLTFKK.I	584
					K.ELGLIDDEGNPIIQPR.R	89
					K.WLISSLVAK.H	508
					K.NFATQPVSIHPQSAVYNK.W	667
					R.EYHIAAQLEDWDYNPQPEELSR.L	901
					K.AQYLDNFSNFIGKK.Y	548.
					R.LDDAVPPGQSFK.Y	637
					K.SWYLEDNIKK.Y	648.
					K.DAEGAIYPSDPK.E	631
					K.LYHSAVDMTR.D	398
					R.LSESDLTFK.K	520.
			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		R.GILGPVIK.A	398
					K.SWYLEDNIK.K	584.
					R.EYELDFKQEKPR.D	527
					K.LYHSAVDM(+15.99)TR.D	403
					R.DTVTIVFK.N	461
FA5V_OXYSU	99.2 Venom	n prothrombin activator Oscutarin-C non-catalytic sub	ounit Oxyuranus scutellatus	14	K.AQYLDNFSNFIGK.K	758.
					K.SNVMYTLNGYASDR.T	795
					K.WSEGSSYSDGTSDVER.L	881
					R.GEVGDSLIIYFK.N	670.
					R.EYVLMFSVFDESK.N	797
					K.WTVLDTDEPTVK.D	702
					K.AVEPGQVYTYK.W	627
					K.ADVEQHAVFAVFDENK.S	027
					K.ADVEQHAVI AVI DENK.5	607
					R.LSESDLTFKK.I	
					R.LSESDLTFKK.I	607. 584
					R.LSESDLTFKK.I K.WLISSLVAK.H	607
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W	607. 584 508. 667.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y	607. 584 508. 667. 548.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y	607. 584 508. 667. 548.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y	607. 584 508. 667. 548. 637.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D	607. 584 508. 667. 548. 637. 648.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K	607 584 508 667 548 637 648 398
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A	607 584 508 667 548 637 648 398 520
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K	607 584 508 667 548 637 648 398 520 398
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSHPDSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EJELDFKQEKPR.D	607. 584 508. 667. 548. 637. 648. 398 520. 398 584.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N	607. 584 508. 667. 548. 637. 648. 398 520. 398. 584. 527. 403.
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K	607. 584 508. 667. 548. 637. 648. 398 520. 398. 584. 527. 403.
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403.
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K	607. 584 508 667. 548. 637. 648. 398 520. 398 584. 527. 403. 461. 758.
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMTINGYASDR.T	607. 584 508. 667. 548. 637. 648. 398. 520. 398. 584. 527. 403. 461. 758.
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SWYLTNFSNFIGK.K K.SWYLTNFSNFIGK.K K.SWYLTNFSNFIGK.K	607 584 508 667 548 637 648 398 520 398 584 461 758 795 881
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNWYTLNGYASDR.T K.MSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 461. 758. 797
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALTOPVSHIPOSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM[+15.99]TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNIGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTVLDTDEPTVK.D	607 584 508 667 548 637 648 398 520 398 584 527 403 461 758 797 702 627
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.MYVLDTEDFTVK.D K.AVYLDTEDFTVK.D K.AVYLDTEDFTVK.D K.MYVLDTEDFTVK.D K.MYVLDTEDFTVK.D K.MYVLDTEDFTVK.D K.MYVLDTEDFTVK.D K.MYVLDTEDFTVK.D	607 584 508 667 548 637 648 399 520 399 584 527 403 461 758 881 799 702 627 607
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNWYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVPEGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I	607 584 508 667 548 637 648 396 520 396 584 527 403 461 758 797 702 627 607 584
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.MYTLDTDEPTVK.D K.AVEPGQVYTYK.W K.AVEPGQVYTYK.W K.AVEPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H	607 584 508 667 548 637 6488 398 520 398 527 403 461 758 881 799 700 627 607 584 508
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNWYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVPEGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I	607 584 508 667 548 637 648 399 520 399 584 461 758 881 797 702 627 607 584 508
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SWYMTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPOSAVYNK.W R.EYHIAAQLEDWDYNPQPEELSR.L	607 584 508 667 548 637 648 398 520 398 584 527 403 461 758 797 702 627 607 584 508
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALTOPVSHIPOZAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMI-15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVPDESK.N K.WTVLDTDEPTVK.D K.AVEPGGVYTYK.W K.ADVEQHAVFAVFDENS.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSHPQSAVYNK.W R.EYHLAQLEDWDYNK.W R.EYHLAQLEDWDYNFQPEELSR.L K.AQYLDNFSNFIGKKK	607 584 508 667 548 637 6488 398 520 398 527 403 4611 758 799 702 627 607 548 667 901
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYIHAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGQSFK.Y	607 584 508 667 548 637 648 399 520 403 461 758 881 79: 627 607 584 508 667 901 548 637
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTYTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.FYYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK,Y	607 584 508 667 548 637 648 399 520 403 461 758 881 799 881 790 627 607 584 667 901 548 637 648
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.MTVLDTDEPTVK.D K.AVEPGQVTYY.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WLISSLVAK.H K.NFLATQPVSIHPGSAVYNK.W R.EYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.SMYLEDNIKK.Y K.SMYLEDNIKK.Y K.SMEGGIVYPSDK.F	607 584 508 667 548 637 648 398 520 398 527 403 4611 758 799 607 562 607 568 667 901 548 637 648 631
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.MYTLDTDFPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHJAAQLEDWDYNPQPELISR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y R.LDDAVPPGQSFK,Y K.SWYLEDNIKK,Y R.LDDAVPPGQFK,Y K.SWYLEDNIKK,Y K.DACAGYIPSDPK.E K.LYHSAVDMTR.D	607 584 508 667 548 637 6488 398 520 398 584 527 403 461 799 881 799 627 607 588 667 901 548 637 648 631
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.MTVLDTDEPTVK.D K.AVEPGQVTYY.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WLISSLVAK.H K.NFLATQPVSIHPGSAVYNK.W R.EYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.SMYLEDNIKK.Y K.SMYLEDNIKK.Y K.SMEGGIVYPSDK.F	607 584 508 667 548 637 6488 398 520 398 584 527 403 461 799 881 799 627 607 588 667 901 548 637 648 631
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.MYTLDTDFPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHJAAQLEDWDYNPQPELISR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y R.LDDAVPPGQSFK,Y K.SWYLEDNIKK,Y R.LDDAVPPGQFK,Y K.SWYLEDNIKK,Y K.DACAGYIPSDPK.E K.LYHSAVDMTR.D	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 757. 403. 461. 758. 891. 797 702 627. 607. 584 508. 667. 901. 548. 637. 648. 631. 398
FA5_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMTTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLIMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.PYHAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y R.LDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.ADAEGAIPPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFKK.I K.SWYLEDNIKK.Y K.DAEGAIPPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFKK.K	607 584 508 667 548 398 520 398 527 403 461 758 799 700 627 607 584 508 667 901 548 631 398 631 398 520 520 520 520 520 520 520 520 520 520
FAS_PSETE	99.2	Coagulation factor V	Pseudonaja textilis	14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NALTOPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGGQVTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGGSFK,Y K.SWYLEDNIKK,Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y R.DDAVPPGGSFK,Y K.SWYLEDNIKK,Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K K.SWYLEDNIKK,K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K	607 584 508 667 548 637 648 398 520 398 527 403 4611 758 799 702 627 607 588 667 901 548 637 648 631 631 398 520
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NALSOLVAK.H K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.ADVECHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y K.AQYLDNFSNFIGKK.Y K.SWYLEDNIKK.Y K.AQYLDNFSNFIGKK.Y K.SWYLEDNIKK.Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 4611. 758. 891. 797 702 627. 607. 584. 637. 648. 631. 398 520. 584. 527. 403.
FAS_PSETE		Coagulation factor V n prothrombin activator omicarin-C non-catalytic sub		14	R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVITVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.FYYLMFSVFDESK.N K.WTVLDTDEPTYL.D K.AVPGQVYTYK.W K.ADVEDHAVAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYHIAAQLEDWDYNPQPECLSR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGGSFK.Y K.SWYLEDNIK.Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFKK.K K.SWYLEDNIK.Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDMIK.K R.FYELDFKQEKPR.D K.AQYLDNFSNFIGK.K	607. 584 508. 667. 548. 637. 648. 398 584. 403. 461. 758. 881. 797 702 627. 607. 584 631. 398 520. 584. 631. 398 520. 584. 527.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NELTOPVSHIPOSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMI(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLINGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVEPGGVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSHPQSAVYNK.W R.EYHLAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y K.DDAVPPGGSFK.Y K.SWYLEDNIKK,Y K.DAGGAIYPSDPKE K.LYHSAVDMITR.D R.LSESDLTFKK.R K.K.SESDLTFKK.R K.SWYLEDNIKK.Y K.DAGGAIYPSDPKE K.LYHSAVDMITR.D R.LSESDLTFK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMITR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMITR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMITR.D K.AQYLDNFSNFIGK.K	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 461. 758. 799 881. 799 702 627. 607, 607, 607, 648. 631. 398 524. 648. 631. 398 520.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N K.MTVLDTDEPTVK.D K.AVEPGGQVTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHJAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y R.DDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.DDACAGYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K K.SWYNTLNGYASDR.T K.WSEGSSYSDGTSDVER.L	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 461. 758. 799 702 627. 607. 584 631. 398 520. 548. 637. 648. 631. 398 520. 584. 527. 403. 758.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NALSOLVAK.H K.AQYLDNFSNFIGKK.Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTYTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.MSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTYLDTDEPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVPAVFDENK.S R.LSESDLTFKK.I K.WISLSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y K.ADREGNIYSDPSELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMTR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMTR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.AQYLDNFSNFIGK.K K.SNVHYTLNGYASDR.T K.MSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 4611. 758. 891. 797. 607. 584. 637. 648. 631. 398 520. 548. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NALSCHORLSHIFK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK.Y R.LDDAVPPGQSFK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTVTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.WSEGSSYSDGTSDVER.L R.FYYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.AVPGQVYTYK.W K.ADVEQHAVFAVFDENK.S R.LSESDLTFKK.I K.WISSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.EYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK,Y R.LDDAVPPGGSFK.Y K.SWYLEDNIK.Y K.DAEGAIPYSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K	607. 584 508. 667. 548. 398 520. 398 521. 758. 758. 759. 881. 398 527. 403. 461. 398 527. 403. 461. 398 528. 527. 403. 548. 637. 648. 637. 648. 637. 648. 637. 758. 758. 759.
					R.LSESDLTFKK.I K.WLISSLVAK.H K.NALSSLVAK.H K.NALSOLVAK.H K.AQYLDNFSNFIGKK.Y R.LDDAVPPGGSFK.Y K.SWYLEDNIKK.Y K.LYHSAVDMTR.D R.LSESDLTFK.K R.GILGPVIK.A K.SWYLEDNIK.K R.FYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D R.DTYTIVFK.N K.AQYLDNFSNFIGK.K K.SNVMYTLNGYASDR.T K.MSEGSSYSDGTSDVER.L R.EYYLMFSVFDESK.N K.WTYLDTDEPTVK.D K.AVEPGQVYTYK.W K.ADVEQHAVPAVFDENK.S R.LSESDLTFKK.I K.WISLSLVAK.H K.NFATQPVSIHPQSAVYNK.W R.FYHIAAQLEDWDYNPQPEELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y K.ADREGNIYSDPSELSR.L K.AQYLDNFSNFIGKK.Y R.LDDAVPPGQSFK.Y K.SWYLEDNIKK,Y K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D R.LSESDLTFK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMTR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.LYHSAVDMTR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.AQYLDNFSNFIGK.K K.SWYLEDNIK.K R.EYELDFKQEKPR.D K.AQYLDNFSNFIGK.K K.SNVHYTLNGYASDR.T K.MSEGSSYSDGTSDVER.L R.EYVLMFSVFDESK.N	607. 584 508. 667. 548. 637. 648. 398 520. 398 584. 527. 403. 4611. 758. 891. 797. 607. 584. 637. 648. 631. 398 520. 548. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648. 637. 648.

			TICCEL TED IVI	ANUSCRIPT		K.NFATQPVSIHPQSAVYNK.W K.AQYLDNFSNFIGKK.Y	667.72 548.99
						R.LDDAVPPGQSFK.Y	637.31
						K.SWYLEDNIKK.Y	648.38
						K.DAEGAIYPSDPK.E	631.84
						K.LYHSAVDMTR.D	398.2
						R.GILGPVIK.A	398.8
						K.SWYLEDNIK.K	584.34
						R.EYELDFKQEKPR.D K.LYHSAVDM(+15.99)TR.D	527.92 403.56
						R.DTVTIVFK.N	461.78
VF5a	FA5V_PSETE	99.19	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	21	K.WSEGSSYSDGTSDVER.L	881.35
			,			K.VSTINLVGGASVTADMSVSR.T	982.52
						K.SNVMYTLNGYASDR.T	795.87
						K.ADVEQHAVFAVFDENK.S	909.97
						K.AQYLDNFSNFIGK.K	758.87
						K.AVEPGQVYTYK.W	627.82
						R.GEVGDSLIIYFK.N	670.88
						K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N	1001 797.4
						K.WTVLDTDEPTVK.D	702.38
						K.ELGLIDDEGNPIIQPR.R	889.98
						K.EEVPVNFVPDPESDALAK.E	978.47
						R.DALSGLLGPTLR.G	606.89
						K.AQYLDNFSNFIGKK.Y	822.93
						R.LSESDLTFKK.I	584.32
						K.DAEGAIYPSDPK.E	631.82
						K.LYHSAVDMTR.D	596.81
						K.WLISSLVAK.H	508.86
						R.LDDAVPPGQSFK.Y	637.3
						K.SWYLEDNIK.K R.GILGPVIK.A	584.34 398.8
						K.SWYLEDNIKK.Y	648.39
						K.NLASRPYSIYVHGVSVSK.D	659.71
						R.DTVTIVFK.N	461.77
						K.VRDTVTIVFK.N	589.39
						K.HLQAGMYGYLNIK.D	503.37
-						K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y	1006.1
	isotig00199 isotig00200	99.19 99.19	VF5a-3 VF5a-2	Pseudonaja textilis Pseudonaja textilis	31 19	K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T	881.35 795.87
	13011g00200	33.13	V1 3a-2	r seudonaja textilis	15	K.AQYLDNFSNFIGK.K	758.8
						K.AVEPGQVYTYK.W	627.82
						R.GEVGDSLIIYFK.N	670.88
						K.NFATQPVSIHPQSAVYNK.W	1001
						R.EYVLMFSVFDESK.N	797.4
						K.WTVLDTDEPTVK.D	702.3
						K.ELGLIDDEGNPIIQPR.R	889.9
						K.EEVPVNFVPDPESDALAK.E R.DALSGLLGPTLR.G	978.47 606.89
						K.AQYLDNFSNFIGKK.Y	822.93
						R.LSESDLTFKK.I	
							584.32
						K.DAEGAIYPSDPK.E	
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D	631.82
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H	631.82 596.83 508.86
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y	631.83 596.83 508.86 637.33
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K	631.82 596.83 508.86 637.33 584.34
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A	631.8 596.8 508.8 637.3 584.3 398.8
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y	631.8. 596.8. 508.8 637.3. 584.3 398.8 648.3
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIIGPVIK.A K.SWYLEDNIKK.Y K.NUKSWYLEDNIK.Y	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIKK.Y K.NLASRYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D	631.8 596.8 508.8 637.3 584.3 398.6 648.3 659.7 461.7 589.3 503.3
_				7		K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 503.3 791.5
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIKK.Y K.NALSRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.LDDAVPPGQSFK.Y	631.8 596.8 508.8 637.3 584.3 398.6 648.3 659.7 461.7 589.3 791.5 1006.2
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Охуuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NUASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLL K.SNVMYTLNGYASDR.T	631.8 596.8 508.8 637.3 584.3 398.6 648.3 659.7 461.7 589.3 791.5 1006.1
-	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIKK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPYGVSFR.L K.SNVMYTLNGVASDR.T K.ADVEQHAVFAVFDENK.S	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 791.5 1006.1 881.3 795.8
	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NUASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLL K.SNVMYTLNGYASDR.T	631.8 596.8 508.8 637.3 584.3 398.8 659.7 461.7 589.3 503.3 791.5 881.3 795.8 909.9
-	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERL K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDERIK.S K.AQYLDNFSNFIGK.K	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 791.5 1006.1 881.3 795.8 909.9 758.8 627.8
	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIKK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSCGSSYSDGTSDVERLDDAVPRGSFK.Y K.AVEQHAVFAVFDENK.S K.AQVLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIVFK.N K.NFATQPVSIHPQSAVYNK.W	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 791.5 1006.1 881.3 795.8 909.9 758.8 627.8 670.8
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDBAVPFGQSFK.Y K.ADVEQHAVFAVFDENK.S K.ADVEQHAVFAVFDENK.S K.AVEPGQVTTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 503.3 791.5 1006.1 881.3 795.8 627.8 670.8
	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.LDAVPPGQSFK.Y K.WSEGSSYSDGTSDVER.LDAVPPGQSFK.Y K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSYEDSK.N K.WTLDTDEPTVK.D	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 503.3 791.5 1006.1 881.3 795.8 909.9 758.8 627.8 670.8
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFPGQVYTYK.W R.GEVGDSLIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTLDTDEFTVK.D K.EVVLMFSVFDESK.N K.WTLDTDEFTVK.D K.EEVPVNFVPDPESDALAK.E	631.8 596.8 508.8 637.3 584.3 398.8 648.3 791.5 1006.1 881.3 795.8 909.9 758.8 627.8 670.8 1001 797.4
-	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIKK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPFQSFK.Y K.AVEQHAVFAVFDENK.S K.AQVLDNFSNFIGK.K K.AVEPQQVTYK.W R.GEVGDSLIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EVPVMFVPDPESDALAK.E K.AQVLDNFSNFIGK.K	631.8 596.8 508.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 503.3 791.5 1006.2 881.3 795.8 627.8 670.8 1001 797.4
_	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFPGQVYTYK.W R.GEVGDSLIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTLDTDEFTVK.D K.EVVLMFSVFDESK.N K.WTLDTDEFTVK.D K.EEVPVNFVPDPESDALAK.E	631.8 596.8 598.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 791.5 1006.2 881.3 795.8 909.9 758.8 627.8 670.8 1001 797.4 702.3 978.4 822.9 584.3
-	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLONFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTULDTDEPTVK.D K.EEVPVNFYDPESDALAK.E K.AQVLDNFSNFIGK.K	631.8 596.8 508.8 637.3 584.3 398.8 648.3 791.5 1006.1 881.3 795.8 677.8 670.8 1001 797.2 702.3 978.4 822.9 584.3 596.8
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIIGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPKGSFK.Y K.WSEGSSYSDGTSDVERLDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPFGQSFK.Y K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEFTVK.D K.EEVPVMFVPDFESDALAK.E K.AQYLDNFSNFIGKK,Y R.LSESDLTFKK.I K.LYHSAVDMTR.D	631.8 596.8 508.8 637.3 584.3 398.6 648.3 791.5 1006.1 881.3 795.8 627.8 670.8 1001 797.4 822.9 584.3 596.8 508.8
-	FASV_OXYSU	99,19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYFLDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEFGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLLDFSDKLAK.G K.WYLDNFSNFIGK.K K.AVEPGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPVNFVPDFESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K	631.8: 596.8 508.8 637.3 584.3 398.8 648.3; 659.7 461.7 589.3; 791.5; 1006.1 881.3; 795.8* 607.8: 1001 797.4 702.3; 978.4 822.9; 584.3; 596.8 508.8 637.3; 584.3;
-	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVYEDGVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK,Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLYSSLVAK.H R.LDDAVPPGQSFK,Y K.SWYLEDNIK.K R.GILGPVIK.A	631.8 596.8 508.8 637.3 584.3 388.6 648.3 791.5 1006.1 881.3 795.8 670.8 1001 797.4 702.3 978.4 822.9 584.3 396.8 508.8 637.3
_	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.VRDTVTIVFK.N K.VRDTVTIVFK.N K.VRDTVTIVFK.N K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPPGQSFK.Y K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLDNFSNFIGK.K K.AVPEGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK,Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K	631.8: 596.8 508.8: 637.3: 584.3: 398.8: 648.3: 791.5: 1006.1 881.3: 795.8: 670.8: 1001 797.4: 822.9: 584.3: 596.8: 637.3: 586.8: 637.3: 586.8: 648.3:
	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L DAVPPGQSFK.Y K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPVINFVDPESDALAK.E K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.SWYLEDNIK.K R.SWYLEDNIK	631.8 596.8 598.8 637.3 584.3 398.8 648.3 659.7 461.7 589.3 791.5 1006.1 797.8 670.8 1001 797.4 702.3 978.4 822.9 584.3 596.8 508.8 637.3 584.3 596.8
_	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPKGSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EVPVMFVPDFESDALAK.E K.AQYLDNFSNFIGKK,Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WITSLSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y R.GILGPVIK.A K.SWYLEDNIK.Y R.GILGPVIK.A K.SWYLEDNIK.Y R.GILGPVIK.A R.SWYLEDNIK.Y R.GILGPVIK.A R.SUNTEDNIK.Y K.NLASRPYSIVYHGVSVSVS.D R.DTVTIVFK.N	631.8: 596.8 508.8 637.3 584.3 398.8 648.3; 659.7 461.7 589.3; 791.5; 1006.1 881.3; 792.8 670.8; 1001 797.4 702.3; 596.8 508.8; 637.3 596.8 508.8; 637.3 584.3; 398.8 648.3; 659.7 461.7
	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFGQVYTYK.W R.GEVGDSLIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTLOTDEPTVK.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGK.K K.AYLDDAVPFGQSFK.Y K.SWSLEDNIK.Y R.LSEDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.DTVTIVFK.N K.VRDTVTIVFK.N	631.8: 596.8 508.8: 637.3 584.3 398.8: 648.3: 791.5: 1006.1 881.3: 795.8: 670.8: 1001 797.4 822.9: 584.3: 596.8: 508.8: 637.3 584.3: 596.8: 648.3: 648.3: 648.3: 648.3: 659.7
-	FASV_OXYSU	99.19	Venom prothrombin activator Oścutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLONFSNFIGK.K K.AVEPGQVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLLDFSDF.L K.WSEGSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLONFSNFIGK.K K.AVEPGQVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPVNFVPDFESDALAK.E K.AQYLDNFSNFIGKK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D	631.8: 596.8 508.8: 637.3 584.3 398.8 648.3: 659.7 461.7 589.3: 791.5: 1006.1 881.3: 795.8: 627.8: 670.8: 1001 797.4 702.3: 596.8 508.8: 637.3 584.3 398.8 648.3: 648.3: 659.7 461.7 589.3:
_	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFGQVYTYK.W R.GEVGDSLIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTLOTDEPTVK.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGK.K K.AYLDDAVPFGQSFK.Y K.SWSLEDNIK.Y R.LSEDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.DTVTIVFK.N K.VRDTVTIVFK.N	631.8: 596.8 508.8 637.3 584.3 398.8 648.3: 659.7 461.7 589.3: 791.5: 1006.1 881.3: 795.8: 670.8: 1001 797.4 702.3: 978.4 822.9: 584.3: 596.8 637.3 584.3 398.8 643.3 584.3 398.8 645.7 461.7 589.3 791.5:
-	FASV_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus scutellatus Oxyuranus microlepidotus	18	K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L DAVPPGQSFK.Y K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPYSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPVMFVPDFESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WILSSLVAK.H R.LDDAVPFGQSFK.Y K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.NLASRPYSIVYHGVSVSK.D R.EYPLDFKQAKPR.D R.EYLDFKQAKP.L	631.8: 596.8 508.8: 637.3: 584.3: 398.8: 648.3: 659.7 461.7 589.3: 791.5: 1006.1 881.3: 795.8: 670.8: 1001 797.4 702.3: 978.4 822.9: 584.3: 398.8: 648.3: 659.7 461.7 589.3: 593.3 791.5:
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPPGQSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDMFSNFIGK.K K.AVEPGQVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EEVPUNFVPDPESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.N K.NHASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y	631.8: 596.8: 598.8: 637.3: 584.3: 398.8: 648.3: 659.7: 461.7: 589.3: 791.5: 1006.1 881.3: 670.8: 1001 797.4 702.3: 978.4: 596.8: 637.3: 584.3: 596.8: 648.3: 596.8: 648.3: 596.8: 648.3: 584.3: 584.3: 584.3: 584.3: 584.3: 584.3: 585.3: 584.3: 585.3: 584.3: 585.3:
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYYLMFSVFDSK.N K.WYLDTDEPTVK.D K.EEVPVNFVPDFESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.Y R.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.K R.GIGPVIK.A K.SWYLEDNIK.Y K.SWYLEDNIK.Y K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D R.DTVTIVFK.N K.NRAGYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLL K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D R.DTVTIVFK.N K.HQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLL K.SWYMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S	631.8; 596.8; 598.8; 637.3; 584.3; 398.8; 648.3; 659.7; 461.7; 589.3; 791.5; 1006.1 881.3; 795.8; 670.8; 1001 797.4, 702.3; 978.4; 822.9; 584.3; 596.8; 637.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 584.3; 585.7; 461.7; 589.3; 500.6; 881.3; 795.8;
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.ADYEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFGQVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVR.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK,Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPFQQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NRASPYSIVYHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.PELDFKR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNIK.D R.PELDFKR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNIK.D R.PELDFKR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNIK.D K.WSEGSSYSDGTSDVER.L K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K	631.82 596.83 598.86 637.33 584.34 398.8 648.33 791.52 1006.1 881.33 795.83 670.88 1001 797.4 702.33 978.47 822.93 584.33 596.83 637.83 63
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVITVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTTUNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLONFSNFIGK.K K.AVEPGQVTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLDFSPNFIGK.K K.AVLONFSNFIGK.K K.WYLDTSPNFIGK.K K.WYLDTSPNFIGK.K K.WYLDTSPNFIGK.K R.WYLLDTDEPTVK.D K.EVYLMFSVFDESK.N K.WILSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQVLONFSNFIGK.K K.AUVEDFRICK K.AVPEDGVTYK.W	584.33 631.83 536.84 637.31 584.33 584.33 659.77 589.33 503.37 791.52 1006.1 881.33 795.83 627.83 627.83 648.33 598.83 627.83 637.33 598.83 637.33 598.83 637.33 598.83 648.33 659.77 461.77 589.33 791.52 1006.1
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYFLDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFEGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLLDFKQEKFR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFEGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.N K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.NLASRPYSIVYHGVSVSK.D R.PYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.SWSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.SNYMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AVFPGGQVYTYK.W K.NFATQPVSIHPQSAVYNK.W	631.82 596.81 598.84 637.31 584.34 398.8 648.33 659.71 461.77 589.33 791.52 1006.1 881.33 795.83 627.83 637.33 584.34 398.8 648.33 649.33 649.33 649.33 659.71 659.71 669.73
						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPFGQSFK.Y K.WSEGSSYSDGTSDVERLDAVPFGQSFK.Y K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N K.WTVLDTDEPTVR.D K.EEVPVMFVPDFESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NRASPYSIVYHGVSVSK.D R.DTVTIVFK.N K.NRASPYSIVYHGVSVSK.D R.DTVTIVFK.N K.NRASPSSYVHGVSVSK.D R.FYELDFKQEKPR.D K.WSEGSSYSDGTSDVERL K.SNVMETINGVASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEFGGVYTYK.W K.NSEGSSYSDGTSDVERL K.SNVMYTINGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVEFGGVYTYK.W K.NFATQPVSIHPQSAVYNK.W R.EVVLMFSVFDESK.N	631.82 596.81 508.86 637.31 584.34 398.8 648.33 659.71 461.77 589.33 791.52 1006.1 881.33 795.83 670.88 1001 797.4 822.93 584.33 596.81 584.33 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 598.86 637.83 639.87 58
-						K.DAEGAIYPSDPK.E K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D R.DTVTIVFK.N K.HLQAGMYGYLNIK.D R.EYFLDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFEGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLLDFKQEKFR.D K.WSEGSSYSDGTSDVER.L K.SNVMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AVFEGGVYTYK.W R.GEVGDSLIIYFK.N K.NFATQPVSIHPQSAVYNK.W R.EVYLMFSVFDESK.N K.WTVLDTDEPTVK.D K.EVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I K.LYHSAVDMTR.D K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.A K.SWYLEDNIK.K R.GILGPVIK.N K.NLASRPYSIVYHGVSVSK.D R.DTVTIVFK.N K.NLASRPYSIVYHGVSVSK.D R.PYELDFKQEKPR.D K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.SWSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.SNYMYTLNGYASDR.T K.ADVEQHAVFAVFDENK.S K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AQYLDNFSNFIGK.K K.AVFPGGQVYTYK.W K.NFATQPVSIHPQSAVYNK.W	631.82 596.81 598.84 637.31 584.34 398.8 648.33 659.71 461.77 589.33 791.52 1006.1 881.33 795.83 627.83 637.33 584.34 398.8 648.33 649.33 649.33 649.33 659.71 659.71 669.73

			A COEDTED A	ANHIGGRIDE			
			ACCEPTED MA	ANUSCRIPT		K.DAEGAIYPSDPK.E	631.82
						K.LYHSAVDMTR.D K.WLISSLVAK.H	596.81 508.86
						R.LDDAVPPGQSFK.Y	637.31
						K.SWYLEDNIK.K	584.34
						R.GILGPVIK.A	398.8
						K.SWYLEDNIKK.Y K.NLASRPYSIYVHGVSVSK.D	648.39
						R.DTVTIVFK.N	659.71 461.77
						K.VRDTVTIVFK.N	589.39
						K.HLQAGMYGYLNIK.D	503.37
						R.EYELDFKQEKPR.D	791.52
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis	15	K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y K.WSEGSSYSDGTSDVER.L	1006.11 881.35
	FA3_P3E1E	99.19	Coagulation factor v	rseudonaja textilis	13	K.SNVMYTLNGYASDR.T	795.87
						K.ADVEQHAVFAVFDENK.S	909.97
						K.AQYLDNFSNFIGK.K	758.87
						K.AVEPGQVYTYK.W	627.82
						K.NFATQPVSIHPQSAVYNK.W R.EYVLMFSVFDESK.N	1001 797.4
						K.WTVLDTDEPTVK.D	702.38
						K.AQYLDNFSNFIGKK.Y	822.93
						R.LSESDLTFKK.I	584.32
						K.DAEGAIYPSDPK.E	631.82 596.81
						K.LYHSAVDMTR.D K.WLISSLVAK.H	508.86
						R.LDDAVPPGQSFK.Y	637.31
						K.SWYLEDNIK.K	584.34
						K.SWYLEDNIKK.Y	648.39
						K.NLASRPYSIYVHGVSVSK.D K.HLQAGMYGYLNIK.D	659.71 503.37
						R.EYELDFKQEKPR.D	791.52
						K.WSEGSSYSDGTSDVERLDDAVPPGQSFK.Y	1006.11
VF5a	isotig00199	99.19	VF5a-3	Pseudonaja textilis	31	K.WSEGSSYSDGTSDVER.L	881.36
	isotig00200	99.19	VF5a-2	Pseudonaja textilis	19	K.AQYLDNFSNFIGK.K	758.88
						R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W	797.4 1000.97
						K.SNVMYTLNGYASDR.T	795.86
						K.WTVLDTDEPTVK.D	702.39
						R.GEVGDSLIIYFK.N	670.91
						R.DALSGLLGPTLR.G K.AVEPGQVYTYK.W	606.87 627.82
						K.EEVPVNFVPDPESDALAK.E	978.47
						K.AQYLDNFSNFIGKK.Y	822.93
						R.LSESDLTFKK.I	584.32
						K.DAEGAIYPSDPK.E	631.83
						R.LSESDLTFK.K K.GVQNSADVEQHAVFAVFDENK.S	520.31 768.73
						R.LDDAVPPGQSFK.Y	637.31
						K.WLISSLVAK.H	508.87
						K.LYHSAVDMTR.D	596.79
						K.SWYLEDNIK.K K.VRDTVTIVFK.N	584.35 589.42
						K.SWYLEDNIKK.Y	648.41
						K.NLASRPYSIYVHGVSVSK.D	659.7
			/ X Y			K.LYHSAVDM(+15.99)TR.D	604.85
						R.GILGPVIK.A R.TEVLR.F	398.78 309.23
						R.EYELDFKQEKPR.D	527.93
•	FA5V_OXYMI	99.19	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	16	K.WSEGSSYSDGTSDVER.L	881.36
					10	K.AQYLDNFSNFIGK.K	
					10		758.88
					10	R.EYVLMFSVFDESK.N	797.4
					10	K.NFATQPVSIHPQSAVYNK.W	797.4 1000.97
					10		797.4
					10	K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W	797.4 1000.97 795.86 702.39 627.82
					10	K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E	797.4 1000.97 795.86 702.39 627.82 978.47
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y	797.4 1000.97 795.86 702.39 627.82 978.47 822.93
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E	797.4 1000.97 795.86 702.39 627.82 978.47
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTYK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTYK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVFPGQVYTVK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K K.SWYLEDNIK.K	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 508.87 596.79 584.35 589.42 648.41 659.7
						K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVFPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIKK,Y K.NLASPYSIVVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.81 508.87 596.79 584.35 589.42 648.41 659.7
		\overline{\pi}				K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIKK,Y K.NLASRPYSIVYHGVSVSK.D K.LYHSAVDM/15.99)TR.D R.GILGPVIK.A	797.4 1000.97 795.86 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78
	FAS PSETE	99.19	Coagulation factor V	Pseudonaja textilis	14	K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.81 508.87 596.79 584.35 589.42 648.41 659.7
	FA5_PSETE	99.19	Coagulation factor V	Pseudonāja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIKK,Y K.NLASRPYSIVYHGVSVSK.D K.LYHSAVDM/15.99)TR.D R.GILGPVIK.A	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93
	FAS_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK,Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIKK,Y K.NLASRYSIVYHGVSVSK.D K.LYHSAVDM[15.99]TR.D R.GILGPVIK.A R.FYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQVLDNFSNFIGK.K R.EYVLMFSVFDESK.N	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88
	FAS_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFOESK.N K.NFATQPVSIHPQSAVYNK.W	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYLLDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFDSK.N K.NFATQPVSIHPQSAVYNK.W K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 \$27.93 881.36 758.88 797.4 1000.97 795.86
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFOESK.N K.NFATQPVSIHPQSAVYNK.W	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97
	FAS_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTINGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WILSSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.NRASPYSIVYHGVSVSK.D K.LYHSAVDMI-15.99JTR.D R.GIIGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMTINGYASDR.T K.WSLOSSYNDTINGYASDR.T K.WSLOSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTINGYASDR.T K.WTLDTDEPTVK.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39
	FAS_PSETE	99.19	Coagulation factor V	Pseudonoja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYLDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.EVYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.EYLLDFKSRIFIGK.K R.EYLLDFKSFIGK.K R.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K R.SQVLDNFSNFIGK.K	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39 627.82 822.93 584.32
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTINGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WILSSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIVYHGVSVSK.D K.LYHSAVDMY15.99JTR.D R.GIIGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.FYYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMTTLNGYASDR.T K.WTVLDTDEPTVK.D K.WSEGSOYTOVTYK.W K.AQYLDNFSNFIGKK,Y R.SESSDITFKK.I R.GEVGDILIIYFK.N	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39 627.82 822.93 584.32 683.94
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.EEVPVNEVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AYEPGQVYTYK.W K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.86 792.4 1000.97 795.86 702.39 627.82 822.93 584.32
	FAS_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIVVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.FYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.J R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LSESDLTFKK.J	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39 627.82 822.93 584.32 683.94
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.EEVPVNEVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYYLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AYEPGQVYTYK.W K.AQYLDNFSNFIGK.Y R.LSESDLTFKK.I R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 881.36 758.88 77.93 81.36 702.39 627.82 822.93 584.32 683.94 631.83 520.31
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTYK.W K.EEVPVNEVPDPESDALAK.E K.AQYLDNESNFIGKK.Y R.GEVGDILIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.NLASRPYSIVVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.LSESDLTFKK.I R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LSESDLTFKK.I R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LSESDLTFK.K R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39 627.82 822.93 584.32 683.94 631.83 520.31 637.31 508.87
	FA5_PSETE	99.19	Coagulation factor V	Pseudonaja textilis		K.NFATQPVSIHPQSAVYNK.W K.SNVMYTLNGYASDR.T K.WTVLDTDEPTVK.D K.AVEPGQVYTVK.W K.EEVPVNFVPDPESDALAK.E K.AQYLDNFSNFIGKK.Y R.GEVGDILIIYFK.N K.DAEGAIYPSDPK.E R.LDDAVPPGQSFK.Y K.WLISSLVAK.H K.LYHSAVDMTR.D K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.K K.VRDTVTIVFK.N K.SWYLEDNIK.Y K.NLASRPYSIYVHGVSVSK.D K.LYHSAVDM(+15.99)TR.D R.GILGPVIK.A R.EYELDFKQEKPR.D K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K R.EYVLMFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTINGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.EYVLNFSVFDESK.N K.NFATQPVSIHPQSAVYNK.W K.SNVMYTINGYASDR.T K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K R.GEVGDILIIYFK.N K.AGYLDNFSNFIGK.K R.GSCGDILIIYFK.N K.DAEGAIYPSDPK.E R.LSESDLTFK.K R.LDDAVPPGQGSFK,Y K.WLISSLVAK.H	797.4 1000.97 795.86 702.39 627.82 978.47 822.93 683.94 631.83 637.31 508.87 596.79 584.35 589.42 648.41 659.7 604.85 398.78 527.93 881.36 758.88 797.4 1000.97 795.86 702.39 627.82 822.93 584.32 683.94 631.83 520.31 537.31 508.87

			ACCEPTED M	ANUSCRIPT		K.LYHSAVDM(+15.99)TR.D	604.85
VF5a	FA5V_PSETE	99	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	4	R.EYELDFKQEKPR.D R.GEVGDSLIIYFK.N	527.93 670.89
VF3d	FASV_PSETE	99	venoni protinombin activator pseutarin-c non-catalytic subunit	rseudonaja textilis	4	K.AQYLDNFSNFIGK.K	758.93
						K.WTVLDTDEPTVK.D	702.38
						K.ADVEQHAVFAVFDENK.S	607
	isotig00199	98.8	VF5a-3	Pseudonaja textilis	6	R.GEVGDSLIIYFK.N	670.89
	isotig00200	98.8	VF5a-2	Pseudonaja textilis	4	K.AQYLDNFSNFIGK.K	758.93
						K.WTVLDTDEPTVK.D	702.38
						K.GVQNSADVEQHAVFAVFDENK.S	768.72
VF5a	FA5V_PSETE	99.14	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	6	K.AQYLDNFSNFIGK.K	758.9
						K.AVEPGQVYTYK.W	627.8
						K.ADVEQHAVFAVFDENK.S K.WTVLDTDEPTVK.D	606.98
						K.WIVEDIDEPTVK.D K.WLISSLVAK.H	702.42 508.83
						K.WLISSLVAK.H K.VSTINLVGGASVTADMSVSR.T	982.38
						K.LYHSAVDM(+15.99)TR.D	403.58
VF5a	isotig00199	99.02	VF5a-3	Pseudonaja textilis	5	K.AQYLDNFSNFIGK.K	758.9
VISU	FA5V_OXYMI	99.02	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	3	K.WTVLDTDEPTVK.D	702.4
	FA5V_PSETE	99.02	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	3	K.AVEPGQVYTYK.W	627.8
	isotig00200	99.02	VF5a-2	Pseudonaja textilis	3	K.LYHSAVDM(+15.99)TR.D	403.5
VF5a	FA5V_OXYSU	99.15	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	5	K.AQYLDNFSNFIGK.K	758.9
	FA5V_OXYMI	99.15	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	5	K.AVEPGQVYTYK.W	627.8
	FA5V_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	5	K.WTVLDTDEPTVK.D	702.4
						K.ADVEQHAVFAVFDENK.S	607
						K.SWYLEDNIKK.Y	648.4
						K.LYHSAVDMTR.D	596.8
						R.GILGPVIK.A	398.7
VF5a	isotig00199	98.85	VF5a-3	Pseudonaja textilis	4	K.AVEPGQVYTYK.W	627.8
	FA5V_PSETE	98.85	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	2	K.WTVLDTDEPTVK.D	702.3
	isotig00200	98.85	VF5a-2	Pseudonaja textilis	2	K.LYHSAVDMTR.D	596.8
	FA5V_OXYMI	98.84	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	2		
VF5a	FA5V_OXYMI	96.72	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	2	K.ADVEQHAVFAVFDENK.S	1817.85
	FA5V_PSETE	96.72	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	2	K.SWYLEDNIKK.Y	1294.65
	FA5V_OXYSU	95.61	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	2		
	FA5_PSETE	95.61	Coagulation factor V	Pseudonaja textilis	2		
	V8P243_OPHHA	95.61	Coagulation factor V	Ophiophagus hannah	1		
PLA2	isotig00264	84.32	Acidic PLA2-A4	Pseudonaja textilis	16	R.FSGPYWNPYSYK.C	754.8
	isotig00263	84.32	Acidic PLA2-A3	Pseudonaja textilis	16	K.GGSGTPVDELDR.C	601.7
VE10-	PA2A2_PSETE	84.32	Acidic phospholipase A2 2	Pseudonaja textilis	16	K ODECH/CCECH I	F04.0
VF10a	FA102_PSETE	97.05	Coagulation factor X isoform 2	Pseudonaja textilis	6	K.QDFGIVSGFGR.I	591.8
						R.IETGPLLSVDK.I K.YGIYTK.L	586.3 372.7
VF10a	FAXC OXYSU	60.64	Oscutarin-C catalytic subunit	Oxyuranus scutellatus	1	K.YGVYTK.V	365.7
CRISP	isotig00418	64.83	Cysteine-rich venom protein pseudechetoxin-like	Pseudonaja textilis	3	R.NMLQMK.W	382.6
CNISP	R4G2J3_9SAUR	64.81	CRiSP-Pse-4	Pseudonaja modesta	3	K.INIVIEQIVIK.W	302.0
	R4FIS5_9SAUR	64.81	CRISP-FSE-4 CRISP-Pse-17	Pseudonaja modesta	3		
	CRVP_OXYMI	64.81	Cysteine-rich venom protein pseudechetoxin-like	Oxyuranus microlepidotus	3		
	CRVP_PSETE	64.81	Cysteine-rich venom protein pseudechetoxin-like	Pseudonaja textilis	3		
	CRVP_OXYSC	64.81	Cysteine-rich venom protein pseudechetoxin-like	Oxyuranus s. scutellatus	3		
	_		CRiSP-Pse-11	Pseudonaja modesta	3		
	R4G7K2 9SAUR	64.81	CRISP-PSE-11				
	R4G7K2_9SAUR CRVP_PSEPO	64.81 62.46	Cysteine-rich venom protein pseudecin	Pseudechis porphyriacus	3	R.NMLQMK.W	382.6
						R.NMLQMK.W	382.6
VF5a	CRVP_PSEPO	62.46	Cysteine-rich venom protein pseudecin	Pseudechis porphyriacus	3	R.NMLQMK.W R.DALSGLLGPTLR.G	
VF5a	CRVP_PSEPO CRVP_PSEAU	62.46 62.46	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin	Pseudechis porphyriacus Pseudechis australis	3 3		606.9
VF5a	CRVP_PSEPO CRVP_PSEAU	62.46 62.46	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin	Pseudechis porphyriacus Pseudechis australis	3 3	R.DALSGLLGPTLR.G	606.9 550.2
VF5a	CRVP_PSEPO CRVP_PSEAU	62.46 62.46	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin	Pseudechis porphyriacus Pseudechis australis	3 3	R.DALSGLLGPTLR.G K.NSEITASSYK.K	606.9 550.2 582.8
VF5a	CRVP_PSEPO CRVP_PSEAU	62.46 62.46	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin	Pseudechis porphyriacus Pseudechis australis	3 3	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I	606.9 550.2 582.8 783.3
	CRVP_PSEPO CRVP_PSEAU isotig00200	62.46 62.46 99.04	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	606.9 550.2 582.8 783.3 425.6 614.3
VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200	62.46 62.46 99.04	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y	606.9 550.2 582.8 783.3 425.6 614.3
	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE	62.46 62.46 99.04 61.55 61.55	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	606.9 550.2 582.8 783.3 425.6 614.3
	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI	62.46 62.46 99.04 61.55 61.55 61.55	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	606.9 550.2 582.8 783.3 425.6 614.3
	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	606.9 550.2 582.8 783.3 425.6 614.3
	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	606.9 550.2 582.8 783.3 425.6 614.3
VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.55	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A	606.9 550.2 582.8 783.3 425.6 614.3 544.8
	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 VSP243_OPHHA FASV_OXYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A	606.9 550.2 582.8 783.3 425.6 614.3 544.8
VF5a	FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHAA FASV_OXYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K	606.9 550.2 582.8 783.3 425.6 614.3 544.8
VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 VSP243_OPHHA FASV_OXYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I	606.9 550.2 582.8 783.3 425.6 614.3 544.8
VF5a	FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHAA FASV_OXYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y	700.8 550.2 582.8 783.3 425.6 614.3 544.8
VF5a	FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHAA FASV_OXYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y	606.9 550.2 582.8 783.3 425.6 614.3 544.8 700.8 550.3 542.8 425.5 463.2
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.YETGNINSOGHVK.H R.EDNQLGVLPLLPGTFASIK.M	700.8 550.2 582.8 783.3 425.6 614.3 544.8
VF5a	FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHAA FASV_OXYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI FASV_DYMI	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 61.54 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y	700.8 550.2 783.3 425.6 614.3 544.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLIPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H	700.8 552.8 783.3 425.6 614.3 544.8 700.8 425.5 463.2 1006.5
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGRINISDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDVIEIQFR.N	606.9 550.2 582.8 783.3 425.6 6143.3 544.8 700.8 550.5 582.8 425.5 463.2 1006.1 1019.4 770.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLIPGTFASIK.M R.SYLDDTFGTPSTGGEYEK.H R.AEVDDVIELOFR.N K.SWAYYSGVNPEK.D	700.8 550.2 783.3 425.6 614.3 544.8 700.8 550.3 582.8 425.5 1006.9 717.3 700.8 611.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNGSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFGTPSTGGEVEK.H R.AEVDDYIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D	606.9.6 500.2 582.8 783.3 425.6 614.3 544.8 700.8 425.5 463.2 1006.5 1019.4 717.3 700.8 611.8 550.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K	700.8 700.8 700.8 700.8 700.8 700.8 700.8 700.8 700.8 700.8 700.8 601.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVIPLIPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELGFR.N K.SWAYYSGVMPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A	700.8 550.2 783.3 425.6 614.3 544.8 700.8 425.5 1006.2 1019.7 717.3 700.8 664.1 625.3 544.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVJPLIPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDSKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I	700.8 550.2 582.8 783.3 425.6 614.3 544.8 700.8 425.5 43.2 1006.2 1019.4 717.3 700.8 661.8 550.3 664.8 550.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLIPGTFASIK.M R.SYLDDTFGTPSTGGEYEK.H R.AEVDDVIELOPER.N K.SWAYYSGVNPEK.D K.SWAYYSGVNPEK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNGYIALR.I K.TWNGYIALR.I K.TWNGYIALR.I K.TWNGYIALR.I	606.9 550.2 582.8 783.3 425.6 614.3 544.8 700.8 550.3 582.8 61.1 700.8 61.1 625.3 644.6 625.3 544.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHYK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDYIELGFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNGSWEPFLAR.L K.DQWLQIDLQHLTK.I	700.8 550.2 783.3 425.6 614.3 544.8 700.8 550.3 582.8 425.5 1019.4 717.3 700.8 550.3 664.8 625.3 544.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E	700.8 550.2 700.8 700.8 700.8 700.8 700.8 700.8 717.3 700.8 611.8 717.3 700.8 625.3 733.3 744.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNGYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSWEPFLARL K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.K	700.8 500.2 582.8 783.3 425.6 614.3 544.8 700.8 425.5 463.2 1006.1 717.3 700.8 664.4 625.3 544.8 783.3 544.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYK.K K.HLGILGPIIR.A K.SHLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFGTPSTGGEVEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDOKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.K K.HSETQM(+15.99)HFEGNSDGTTVK.E	700.8 550.2 783.3 425.6 614.3 544.8 700.8 550.3 582.8 425.5 1006.1 1019.7 717.3 700.8 611.8 550.3 544.8 544.8 625.3 546.6 674.3 546.6 674.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE FAS_PSETE FAS_PSETE	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseudarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVIPLIPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELGFR.N K.SWAYYSGVMPEK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.D K.ENHIDPPIHAR.Y K.SPELFK.K	700.8 550.2 783.3 425.6 614.3 544.8 700.8 550.3 582.8 425.5 1006.5 1019.7 770.8 550.3 664.1 625.3 544.8 550.3 664.1 667.3 664.3 667.3 666.6 667.3 666.6 667.3 666.6 667.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 VSP243_OPHHA FASV_OXYMI FASV_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.54 99.12 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSWEPFLAR.L K.DQWLQIDLQHITK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.K K.SHIDPPIHAR.Y K.SPELFK.K K.SHIDPPIHAR.Y K.SPELFK.K K.SHIDDPIHAR.Y K.SPELFK.K K.NSEITASSYK.T	700.8 550.2 582.8 783.3 425.6 614.3 544.8 700.8 425.5 463.2 1006.5 1019.4 717.3 664.4 625.3 544.8 582.8 783.3 546.6 674.3 486.2 674.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit Coagulation factor V VF5a-2	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLIPGTFASIK.M R.SYLDDTFGTPSTGGEVEK.H R.AEVDDVIELOPER.N K.SWAYYSGVNPEK.D K.SWAYYSGVNPEK.D K.MSEITASSYK.K K.JGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNGYIALR.I K.TWNSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.D K.ENHIDPPIIAR.Y K.SPELFK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K	606.9.5 500.2 582.8 783.3 425.6 614.3.3 544.8 700.8 550.3 582.8 425.5 425.5 425.5 425.5 425.5 425.5 425.5 425.5 426.6 625.3 544.8 550.3 546.6 647.3 546.6 647.3 546.6 647.3 546.6 647.3 550.3 566.4 647.3 550.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3 566.4 647.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFGTPSTGGEVEK.H R.AEVDDVIEIQFR.N K.SWAYYSGVINPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K K.ITWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTIVK.E R.SYDDKSPELFK.D K.ENHIDPPIHAR.Y K.SPLFK.D K.NSEITASSYK.T K.AQYLDNESNFIGK.K K.NSEITASSYK.T K.AQYLDNESNFIGK.K K.NSEITASSYK.T K.AQYLDNESNFIGK.K K.NSEITASSYK.T	700.8 700.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FASV_OXYSU FAS_PSETE FASV_OXYMI FASV_PSETE isotig00200 V8P243_OPHHA FASV_OXYMI FASV_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 61.55 99.12 99.12	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit Coagulation factor V VF5a-2	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis	3 3 4	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELGFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFKK.D K.ENHIDPPIHAR.Y K.SPELFK.K K.NSEITASSYKK.T K.AQYLDNESNIFASKK K.AQYLDNESNIFASKK K.AQYLDNESNIFASK K.AQYLDNESNIFAK K.WINDTDEPTVK.D	700.8 550.2 700.8 550.3 544.8 700.8 550.3 582.8 425.5 463.2 1006.5 1019.4 777.3 700.8 550.3 664.8 582.8 783.3 546.6 674.3 486.2 637.8 360.7 641.3
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNGYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.K K.NSEITASSYK.T K.AQYLDDHSNFIGK.K K.NSEITASSYK.T K.AQYLDDHSNFIGK.K K.NAVEPGQVYTYK.W K.WTVLDTDEPTVK.D K.SNVMYTLNGYASDR.T	700.8 700.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSSWEPFLAR.L K.ENHIDPPIIAR.Y K.NSEITASSYK.K K.HLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.SHLGILGPIIR.A K.YOTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFGTPSTGGEVEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQYIALR.I K.TWNSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.D K.ENHIDPPIIAR.Y K.SPELFK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.AUEPGQVYTYK.W K.WTVLDTDEPTVK.D K.SNWMYTLNGYASDR.T R.DALSGLLGPTLR.G	606.9 550.2 582.8 783.3 425.6 614.3 544.8 700.8 425.5 432.2 1006.5 1019.4 717.3 700.8 611.8 625.3 544.8 627.3 544.8 627.3 782.8 783.3 546.6 674.3 486.2 637.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQSWEPFLAR.L K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.D K.ENHIDPPIHAR.Y K.SPELFK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T R.DALSGLLGPTUR.G K.WUISSLVAK.H K.NSLITASSYKK.T R.DALSGLLGPTUR.G K.WUISSLVAK.H	700.8 700.8 550.2 783.3 425.6 614.3 544.8 700.8 550.3 582.8 425.5 1019.4 717.3 700.8 583.3 644.8 582.8 783.3 544.8 582.8 783.3 546.6 674.3 785.8 677.8 795.9 607.6 795.9 607.8 795.9 606.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNGYIALR.I K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.SWAYYSGVNPEK.D K.NSEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLETEVGENQER.G K.HLGILGPIIR.A K.TWNGVIALR.I K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.K K.NSEITASSYKK.T K.AQYLDDISNFICIK.K K.NSEITASSYKK.T K.AQYLDDISNFICIK.K K.NSEITASSYKK.T K.AQYLDDISNFICIK.K K.NSEITASSYKK.T K.AQYLDDISNFICIK.K K.NSEITASSYKK.T R.AQYLDDISNFICIK.K K.NSEITASSYKK.T R.AQYLDDISNFICIK.K K.NEVENGRYTYK.W K.WTVLDTDEPTVK.D K.SNVMYTLNGYASDR.T R.DALSGLLGPTLR.G K.WLISSLVAK.H K.SNVM(+15.99)YTLNGYASDR.T	700.8 550.3 522.8 783.3 425.6 614.3 544.8 700.8 425.5 1019.4 717.3 700.8 611.8 550.3 641.8 582.8 783.3 546.6 674.3 486.2 677.8 360.7 614.3 795.9 606.8 702.3 795.9 606.8 702.3 795.9 606.8
VF5a VF5a	CRVP_PSEPO CRVP_PSEAU isotig00200 FA5V_OXYSU FA5_PSETE FA5V_OXYMI FA5V_PSETE isotig00200 V8P243_OPHHA FA5V_OXYMI FA5V_PSETE isotig00200 isotig00200	62.46 62.46 99.04 61.55 61.55 61.55 61.55 99.12 99.12 99.19	Cysteine-rich venom protein pseudecin Cysteine-rich venom protein pseudechetoxin VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit VF5a-2 Coagulation factor V Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator omicarin-C non-catalytic subunit Coagulation factor V VF5a-2 VF5a-2 VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit coagulation factor V	Pseudechis porphyriacus Pseudechis australis Pseudonaja textilis Oxyuranus scutellatus Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Ophiophagus hannah Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	3 3 4 1 1 1 1 1 1 5 5 5 5	R.DALSGLLGPTLR.G K.NSEITASSYK.K K.TWNQYIALR.I K.TWNSWEPFLAR.L K.ENHIDPPIHAR.Y K.NSEITASSYKK.T K.HLGILGPIIR.A K.NSEITASSYKK.T K.HLGILGPIIR.A K.SEITASSYK.K K.TWNQYIALR.I K.ENHIDPPIHAR.Y K.VFTGNINSDGHVK.H R.EDNQLGVLPLLPGTFASIK.M R.SYLDDTFQTPSTGGEVEK.H R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D K.NSEITASSYK.K R.SYDDKSPELFK.K K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.TWNQSWEPFLAR.L K.TWWSSWEPFLAR.L K.DQWLQIDLQHLTK.I R.HSETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.D K.ENHIDPPIHAR.Y K.SPELFK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T K.AQYLDNFSNFIGK.K K.NSEITASSYKK.T R.DALSGLLGPTUR.G K.WUISSLVAK.H K.NSLITASSYKK.T R.DALSGLLGPTUR.G K.WUISSLVAK.H	700.81 550.21 582.84 783.31 425.61 614.31 544.84 550.31 664.81 611.81 550.31 664.81 625.31 544.84 625.31 644.84 627.81 783.31 78

				ACCEPTED M	IANUSCRIPT		K.LYHSAVDMTR.D	596.74
				THE CELL TELL TVI			R.GILGPVIK.A K.WSEGSSYSDGTSDVER.L	398.82 881.34
٧	/F5a	isotig00199	99.19	VF5a-3	Pseudonaja textilis	12	K.AQYLDNFSNFIGK.K	758.88
		FA5V_OXYMI	99.19	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	8	K.AVEPGQVYTYK.W	627.87
		FA5V_PSETE	99.19	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	8	K.SNVMYTLNGYASDR.T	795.88
		isotig00200	99.19	VF5a-2	Pseudonaja textilis	8	K.WTVLDTDEPTVK.D	702.38
							K.WLISSLVAK.H	508.83
							R.GILGPVIK.A	398.81
							K.NLASRPYSIYVHGVSVSK.D	659.73
							K.SWYLEDNIK.K	584.34
							R.DTVTIVFK.N	461.81
	/FF-	:+:-00100	00.10	VF5a-3	Pseudonaja textilis	12	K.LYHSAVDMTR.D	398.17
V	/F5a	isotig00199	99.19		,	13	K.AQYLDNFSNFIGK.K	758.86
		FA5V_OXYMI	99.19	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	8	K.SNVMYTLNGYASDR.T	795.85
		FA5V_PSETE	99.19 99.19	Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Pseudonaja textilis	8 8	K.AVEPGQVYTYK.W	627.84
		isotig00200	99.19	VF5d-Z	Pseudonaja textilis	8	K.WTVLDTDEPTVK.D	702.38
							K.VRDTVTIVFK.N K.NLASRPYSIYVHGVSVSK.D	589.39
							K.AQYLDNFSNFIGKK.Y	659.71 822.89
							R.GILGPVIK.A	398.81
							K.SWYLEDNIK.K	584.3
							K.KKEEVPVNFVPDPESDALAK.E	738.08
							R.DTVTIVFK.N	461.78
V	/F5a	FA5V_OXYSU	99.14	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	4	K.SNVM(+15.99)YTLNGYASDR.T	803.83
٧	vi Ja	FA5V_OXYMI	99.14	Venom prothrombin activator oscatarine non-catalytic subunit	Oxyuranus microlepidotus	4	K.SNVMYTLNGYASDR.T	795.85
		FA5V_PSETE	99.14	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	4	K.AVEPGQVYTYK.W	627.83
	-	V8P243_OPHHA	98.81	Coagulation factor V	Ophiophagus hannah	2	K.WTVLDTDEPTVK.D	702.38
		.01 2-3_OPHITA	20.01	Coagulation factor V	орторнидиз пиннин	· .	R.GILGPVIK.A	398.83
							K.SWYLEDNIK.K	584.34
1/	/F5a	isotig00199	81.75	VF5a-3	Pseudonaja textilis	3	K.AVEPGQVYTYK.W	627.83
٧	50	FA5V_OXYSU	81.75	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	2	K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D	702.37
		FA5_PSETE	81.75	Coagulation factor V	Pseudonaja textilis	2	R.LGEYHINHRDEGEQER.R	661.34
			81.75			2	N.EGETTIINTIKDEGEQEN.K	001.34
		FA5V_OXYMI FA5V_PSETE	81.75	Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit	Oxyuranus microlepidotus Pseudonaja textilis	2		
		isotig00200	81.75	VF5a-2	Pseudonaja textilis Pseudonaja textilis	2		
Cale	eticulin	V8PGR3 OPHHA	98.97		,	9	K.KPDDWDER.A	530.78
call	cucuiff	U3FZP8_MICFL	98.97 98.97	Calreticulin Calreticulin	Ophiophagus hannah Micrurus fulvius	9	K.KPDDWDER.A K.TLVVQFTVK.H	517.87
		isotig00391	98.97	Calreticulin-like	Pseudonaja textilis	9	K.VHVIFNYK.G	510.34
		G1KTK9_ANOCA	98.97	Uncharacterized protein	Anolis carolinensis	9	R.QIDNPNYK.G	496.3
		GIKIKS_ANOCA	30.57	Olicharacterized protein	Anons caronnensis	,	K.NVLINK.D	350.78
V	/F5a	isotig00199	98.38	VF5a-3	Pseudonaja textilis	3	K.SNVMYTLNGYASDR.T	795.89
٠	vi Su	FA5V_PSETE	98.22	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	2	K.SNVM(+15.99)YTLNGYASDR.T	803.85
		isotig00200	98.22	VF5a-2	Pseudonaja textilis	2	K.SWYLEDNIKK.Y	648.38
3	3FTx	NXS2_PSETE	61.66	Short neurotoxin 2	Pseudonaja textilis	18	R.YLIPATHGNAIPAR.G	747.38
,	31 17	NXS7_PSETE	61.66	Short neurotoxin 7	Pseudonaja textilis	18	R.YIIPATHGNAITYR.G	795.45
		isotig00066	61.66	SNTx7	Pseudonaja textilis	15	K. IIII ATTIONALTIKO	755.45
		isotig00074	61.66	SNTx7	Pseudonaja textilis	18		
	-	NXS3_PSETE	61.65	Short neurotoxin 3	Pseudonaja textilis	18	R.YLVPATHGNAIPAR.G	740.42
	-	NXL1_PSETE	56.79	Long neurotoxin 1	Pseudonaja textilis	7	R.TWNDGR.G	374.71
		R4FK93_9SAUR	56.79	3FTx-Pse-38	Pseudonaja modesta	7		
		R4FIU6_9SAUR	56.79	3FTx-Pse-23	Pseudonaja modesta	7		
		isotig00174	56.79	LNTx 1	Pseudonaja textilis	7		
		isotig00176	56.79	LNTx 1	Pseudonaja textilis	7		
٧	/F5a	isotig00199	59.84	VF5a-3	Pseudonaja textilis	1	R.NPDDIAGR.Y	429.17
		FA5_PSETE	59.53	Coagulation factor V	Pseudonaja textilis	1		
			59.53	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	1		
		FA5V_PSETE	55.55					
		FA5V_PSETE isotig00200	59.53	VF5a-2	Pseudonaja textilis	1		
				VF5a-2 Coagulation factor V	Pseudonaja textilis Ophiophagus hannah			
VI	F10a	isotig00200	59.53			1	K.QDFGIVSGFGGIFER.G	814.92
VI	F10a	isotig00200 V8P243_OPHHA	59.53 59.28	Coagulation factor V	Ophiophagus hannah	1 0	K.QDFGIVSGFGGIFER.G K.LPSTESSTGRL	
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE	59.53 59.28 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit	Ophiophagus hannah Pseudonaja textilis	1 0 12		574.3
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL	574.3 517.7
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L	574.3 517.7 565.3
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V	574.3 517.7 565.3 363.6
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H	574.3 517.7 565.3 363.6 645.8
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L	574.3 517.7 565.3 363.6 645.8 320.5
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188	59.53 59.28 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis	1 0 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPVVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I	574.3 517.7 565.3 363.6 645.8 320.5 374.7
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL	574.3 517.7' 565.3 363.6 645.8 320.5; 374.7' 574.3
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPSVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.VLSTESSTGRL K.VLKVPYVDR.H	574.3 517.7 565.3 363.6 645.8 320.5 374.7 574.3 517.7 363.6
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL R.VLKVPYVDR.H R.QKLPSTESSTGR.L	574.3 517.7' 565.3 363.6 645.8 320.5 374.7' 574.3 517.7' 363.6 645.8'
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V	574.3 517.7 565.3 363.6 645.8 320.5 374.7 574.3 517.7 363.6 645.8 365.7
VI	F10a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus	1 0 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LVKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H	574.3 517.7 565.3 363.6 645.8 320.5 374.7 574.3 517.7 363.6 645.8 365.7
VI		isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12	K.LPSTESSTGRL K.LPSTESSTGR.L R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.H	574.3 517.7 565.3 363.6 645.8 320.5 374.7 574.3 517.7 363.6 645.8 365.7 374.7
VI	-	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata	1 0 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VPYVDR.H K.VPYVDR.H	574.3 517.75 565.3 363.6 645.8 320.5 374.75 574.3 517.75 363.6 645.8 365.7; 374.75
VI	-	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189	59.53 59.28 99.15 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus	1 0 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGR.L K.VKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y R.VPYVDR.Y R.VPYVDR.Y K.YGVYTK.V	574.3 517.7: 565.3 363.6 645.8: 320.5: 374.7: 574.3 365.7 374.7: 58.8: 374.7: 365.7
VI	-	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_OXYSU V8PHG1_OPHHA	59.53 59.28 99.15 99.15 99.15 99.15	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment)	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah	1 0 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LVSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H K.VRVPVDR.H K.VRVPVDR.H K.VRVPYVDR.Y R.VPYVDR.Y K.YGVYTK.V K.FIPWIKR.I	574.3 517.7' 565.3 363.6 645.8: 320.5: 374.7' 574.3 517.7' 363.6 645.8: 365.7 374.7. 558.8 365.7 374.7.
VI	-	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_OXYSU V8PHG1_OPHHA FAXD1_NOTSC	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus	1 0 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPYVDR.H K.VRVPVVDR.H K.VRVPVVDR.Y R.VPVVDR.Y R.YFVVDR.Y K.YGVYTK.V K.YGVYTK.V K.YGVYTK.V K.YGVYTK.V K.YGVYTK.V K.YGVYTK.V	574.2 517.7 565.2 363.6 645.8 320.5 374.7 574.2 517.7 363.6 645.8 365.7 374.7 558.8 374.7 365.7 320.5 536.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii	1 0 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.H K.VIRVPYVDR.Y R.VPYVDR.Y R.VPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V	574.2 517.7 565.3 363.6 645.8 320.5 574.3 574.7 574.3 365.7 374.7 558.8 365.7 374.7 365.7 365.7
	-	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.Y R.VPYVDR.Y R.VPYVDR.Y R.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.F K.YGVYTK.V K.WSEGSSYSDGTSDVER.L	574.2 517.7 565.3 63.6 645.8 320.5 374.7 574.3 517.7 363.6 645.8 365.7 374.7 365.7 320.5 365.7 365.7 365.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii	1 0 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.UKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YGYYTK.V K.VPYVDR.Y R.VPYVDR.Y R.VPYVDR.Y K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N	574.2 517.7 565.3 363.6 645.8 320.5 374.7 363.6 645.8 365.7 374.7 558.8 374.7 320.5 365.7 365.7 365.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LVRYVVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VRVPYVDR.H K.VRVPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVYK.N R.DALSGLIGPTLR.G	574.2 517.7 565.2 363.6 645.8 320.5 374.7 574.2 517.7 363.6 645.8 365.7 374.7 365.7 365.7 365.7 365.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y R.VPVVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.MSEGSSYSDGTSDVER.L R.GEVGDSLIIPK.N R.DALSGLLGPTTR.G K.WLISSLVAK.H	574.2 517.7 565.3 363.6 645.8 320.5 374.7 574.2 517.7 363.6 645.8 365.7 374.7 365.7 320.5 365.7 365.7 365.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LVKVPYVDR.H R.QKLPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPYVDR.H K.VRVPYVDR.Y R.VPYVDR.Y R.VPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.GEVGDSLIIYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y	574.2 517.7 565.3 363.6 645.8 320.5 374.7, 574.3 365.7 374.7, 558.8 365.7 320.5 536.7 365.7 881.3 606.8 606.8 606.8
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGYTK.V K.VKVPVVDR.H K.VIRVPYVDR.Y R.VPVVDR.Y K.YGYTK.V K.FIPWIKR.I K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.SEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGGSFK.Y K.VYREYELDFK.Q	574.2 517.7 565.2 363.6 645.8 320.5 517.7 574.2 517.7 363.6 645.8 365.7 374.7 365.7 365.7 365.7 365.7 360.8 360.8 372.2 373.9 373.9
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.VYREYELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D	574.2 517.7 565.2 363.6 645.8 320.5 574.2 574.2 574.3 365.7 374.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7
	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGYTK.V K.VKVPVVDR.H K.VIRVPYVDR.Y R.VPVVDR.Y K.YGYTK.V K.FIPWIKR.I K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.SEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGGSFK.Y K.VYREYELDFK.Q	574.2 517.7 565.2 363.6 645.8 320.5 574.2 574.2 574.3 365.7 374.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7 365.7
V	- - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXC_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis	1 0 12 12 12 12 12 12 2 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.VYREYELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D	574.2 517.7 565.3 363.6 645.8 320.5 517.7 363.6 645.8 365.7 374.7 365.7 320.5 586.7 365.7 374.7 365.7 374.7 365.7 374.7 365.7 374.7
V	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPVVDR.H K.VIRVPYVDR.Y R.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.HOPSTIC.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREYELDFK.Q K.HQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D	574.2 517.7 565.3 636.6 645.8 320.5 374.7 574.3 517.7 363.6 645.8 365.7 320.5 536.7 320.5 536.7 327.7 881.3 606.8 637.2 737.9 937.4
V	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LVKVPYVDR.H R.QKLPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.YPVVDR.H K.VRVPYVDR.Y R.VPVVDR.Y R.VPYVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.HPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREVELDFK.Q K.ILQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWLLETEVGENQER.G	574.3 517.7:565.3 565.3 565.3 520.5i 320.5i 374.7: 574.3 645.8: 365.7: 374.7: 365.7: 365.7: 881.3: 606.8i 508.8: 637.2: 737.9; 508.6: 508.6:
V	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y R.VPYVDR.Y K.YGVYTK.V K.YPYVDR.Y K.YGYYTK.V K.FIPWIKR.I K.GEVGDSJINYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREVELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D R.EYELDFK.QC K.HLQAGM(+15.99)YGYLNIK.D R.EYELDFK.QC R.AEVDDVIEIQFR.N	574.3 517.75 565.3 363.65 645.83 320.56 3374.77 363.61 365.71 374.77 365.71
V	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGVYTK.V K.VPVVDR.H K.YGVYTK.V K.YFPVVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.HPGYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREVELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWILETEVGENQER.G R.AEVDDVIELGFR.N K.SWAYYSGVNPEK.D	574.3 517.7: 565.3 363.6 645.8. 320.5: 374.7: 363.6 645.8. 365.7: 374.7: 365.7: 320.5: 536.7: 881.3: 670.8: 637.2: 737.9: 937.4: 747.7: 757.9: 758.8: 759.8: 75
V	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPYVDR.H K.VIRVPYVDR.Y R.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREYELDFK.Q K.HQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWLLETEVGENQER.G R.AEVDDVIELQFR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N R.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N	574.3 517.75 565.3 363.61 645.8: 320.56 337.7; 574.3 365.71 374.7; 365.7; 365.7; 365.7; 881.3; 606.86 606.86 637.2; 737.96 508.6; 508.6; 508.6; 509.73 509.74 5
v	- - - -	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	59.53 59.28 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 12	K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGRL K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VKVPYVDR.H R.QKLPSTESSTGRL K.YGYYTK.V K.VPYVDR.H K.VIRVPYVDR.Y R.VPYVDR.Y K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N R.DALSGLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGGSFK.Y K.IVYREYELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWLLETEVGENQER.G R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.HLGILGPIIR.A	574.3 517.75 565.3 363.61 645.83 320.58 374.72 574.3 363.61 645.83 365.71 374.73 365.71 365.71 365.71 367.88 606.86 608.82 637.27 737.93 508.83 670.88 670.87 670.88 670.87 670.88
v	- - - /F5a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	99.15 99.15 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 5	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.YGYYTK.V K.VPYVDR.H K.VRVPYVDR.H K.VRVPYVDR.Y K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.FIPWIKR.I K.YGYYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREYELDFK.Q K.HLQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWILLETEVGENQER.G R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.HLGILGPIR.A R.GMQALFTVIDK.D	574.3 517.75 565.3 363.61 645.83 320.56 374.73 574.3 517.75 363.61 365.71 374.72 365.71 381.33 670.86 508.82 527.9 937.44 717.33 70.86 670.87
V	- - - /F5a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	99.15 99.15 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 5	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.VPYVDR.H K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPVVDR.Y K.YGVYTK.V K.VPVVDR.Y K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIYFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.Y K.IVYREVELDFK.Q K.HLQAGM(+15-99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWLLETEVGENQER.G R.AEVDDVIELOGR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.HLGILGPIIR.A R.GMQALFTVIDK.D K.IGTWLLETEVGENQER.G R.AEVDDVIELOGR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIYFK.N K.HLGILGPIIR.A R.GMQALFTVIDK.D	517.75 363.61 645.83 365.71 374.73 558.87 374.73 320.58 536.75 365.71 881.35 670.88 606.86 637.27 737.98 508.63
v	- - - /F5a	isotig00200 V8P243_OPHHA FAXC_PSETE isotig00188 isotig00189 FAXC_OXYSU FAXD2_DEMVE V8PHG1_OPHHA FAXD1_NOTSC FAXD_HOPST isotig00199 isotig00200	99.15 99.15 99.15 99.15 99.15 99.15 98.81 81.24 75.66 62.97 62.97 99.17 99.17	Coagulation factor V Venom prothrombin activator pseutarin-C catalytic subunit VF10a isoform 1 VF10a isoform 1 Oscutarin-C catalytic subunit Venom prothrombin activator vestarin-D2 Coagulation factor X isoform 1 (Fragment) Venom prothrombin activator notecarin-D1 Venom prothrombin activator hopsarin-D VF5a-3 VF5a-2	Ophiophagus hannah Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus Demansia vestigiata Ophiophagus hannah Notechis s. scutatus Hoplocephalus stephensii Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	1 0 12 12 12 12 12 12 5	K.LPSTESSTGRL K.LPSTESSTGRL R.AETGPLLSVDK.V K.VLKVPYVDR.H R.QKLPSTESSTGR.L K.FIPWIKR.I K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.LPSTESSTGRL K.VLKVPYVDR.H R.QKLPSTESSTGRL K.YGVYTK.V K.VPVVDR.H K.VIRVPYVDR.Y R.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.FIPWIKR.I K.YGVYTK.V K.WSEGSSYSDGTSDVER.L R.GEVGDSLIIVFK.N R.DALSGLLGPTLR.G K.WLISSLVAK.H R.LDDAVPPGQSFK.V K.IVYREYELDFK.Q K.HQAGM(+15.99)YGYLNIK.D R.EYELDFKQEKPR.D K.IGTWLLETEVGENQER.G R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.HLGILGPIIR.A R.GMQALFTVIDK.D K.IGTWLLETEVGENQER.G R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GEVGDSLIIVFK.N K.HLGILGPIIR.A R.GMQALFTVIDK.D K.IGTWLLETEVGENQER.G R.AEVDDVILLETEVGENQER.G R.AEVDDVILLETEVGENQER.G R.AEVDDVILLETEVGENQER.G	574.3 517.75 565.3 363.61 645.83 320.56 374.73 517.75 363.61 645.83 365.71 374.72 365.71 320.56 536.75 367.86 606.86 637.82 637.22 737.96 508.82 637.27 709.86 670.87

VF5a			ACCEPTED MA			I/ CHANEDI/ C	
VF5a				ANOSCKII		K.SWYFPK.S	414.2
	isotig00200	99.2	VF5a-2	Pseudonaja textilis	9	K.IGTWLLETEVGENQER.G	937.4
						R.GMQALFTVIDK.D R.AEVDDVIEIQFR.N	611.8 717.3
						R.GM(+15.99)QALFTVIDK.D K.VFTGNINSDGHVK.H	619.8 694.3
						K.TWNQYIALR.I	582.8
						K.NSEITASSYK.K	550.3
						K.DIHVVNFHGQTFTEEGR.E	662.7
						K.ENHIDPPIIAR.Y	425.5
						K.ITSIITQGATSMTTSM(+15.99)YVK.T	1025.0
						K.HFFKPPILSR.F	414.6
						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	689.0
VF5a	isotig00199	99.15	VF5a-3	Pseudonaja textilis	10	K.WSEGSSYSDGTSDVER.L	881.3
	FA5V_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	6	R.DALSGLLGPTLR.G	606.9
	isotig00200	99.15	VF5a-2	Pseudonaja textilis	6	R.GEVGDSLIIYFK.N	670.9
						K.WLISSLVAK.H	508.8
						R.LDDAVPPGQSFK.Y	637.3
						K.NFATQPVSIHPQSAVYNK.W	667.7
						R.EYELDFK.Q	472.2
						R.EYELDFKQEKPR.D	527.9
VF5a	isotig00199	99.19	VF5a-3	Pseudonaja textilis	11	K.WSEGSSYSDGTSDVER.L	881.3
	isotig00200	99.19	VF5a-2	Pseudonaja textilis	7	K.AQYLDNFSNFIGK.K	758.8
						R.GEVGDSLIIYFK.N	670.8
						R.DALSGLLGPTLR.G	606.8
						R.LDDAVPPGQSFK.Y	637.3
						K.WLISSLVAK.H	508.8
						R.DTVTIVFK.N	461.
						R.GILGPVIK.A R.EYELDFK.Q	398.8
						R.EYELDFK.Q K.AQYLDNFSNFIGKK.Y	472.2 822.9
						K.AQYLDNFSNFIGKK.Y R.EYELDFKQEKPR.D	822.9 527.
	FA5_PSETE	99.14	Coagulation factor V	Pseudonaja textilis	5	K.WSEGSSYSDGTSDVER.L	881.3
	I VO_LOCIE	33.14	Coagulation factor V	і эсийонији сехсніѕ	3	K.WSEGSSYSDGTSDVER.L K.AQYLDNFSNFIGK.K	758.8
				/		R.LDDAVPPGQSFK.Y	637.3
						K.WLISSLVAK.H	508.8
						R.EYELDFK.Q	472.2
						K.AQYLDNFSNFIGKK.Y	822.9
						R.GILGPVIRAK.V	512.3
						R.EYELDFKQEKPR.D	527.
VF5a	FA5V_PSETE	99.2	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	13	K.IGTWLLETEVGENQER.G	937.4
						K.SWAYYSGVNPEK.D	700.8
						R.GMQALFTVIDK.D	611.8
						K.TWNQYIALR.I	582.8
						R.SYDDKSPELFK.K	664.7
						R.GM(+15.99)QALFTVIDK.D	619.8
						K.VFTGNINSDGHVK.H	694.3
						K.NSEITASSYK.K	550.3
						K.DIHVVNFHGQTFTEEGR.E	662.
						K.EHEHPWIQIDLQR.Q	567.6
						R.LNLEGGTNAWQPEVNNK.D	942.4
						K.NSEITASSYKK.T	614.3
							627 9
						K.ENHIDPPIIAR.Y	
						R.HSETQMHFEGNSDGTTVK.E	669.0
						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S	669.0 414.2
						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M	669.0 414.2 1006.
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S	669.0 414.2 1006. 486.2
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D	669.0 414.2 1006. 486.2 913.5
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H	669.0 414.2 1006. 486.2 913.5 937.4
VF5a	isotig00200	99.19	VF5a-2	Pseudonoja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G	669.0 414.2 1006. 486.2 913.5 937.4 1019.
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H	669.0 414.2 1006. 486.2 913.5 937.4 1019.
VF5a	isotig00200	99.19	VFSa-2	Pseudonoja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVVPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMTVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonāja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(15.99)TTSMYVK.T R.GMQALFTVIDK.D	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 1025. 611.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonoja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A	669.0 414.2 1006. 486.2 913.5 1019. 1017. 717.4 700.8 1025. 611.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEVEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K	669.0 414.2 1006. 486.2 913.5 1019. 1017. 717.4 700.8 1025. 611.8 550.2
VF5a	isotig00200	99.19	VFSa-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSMTJSMYVK.T R.GMQALFTVIDK.D K.HGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 611.8 550.2 942.4
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(1-5-99)TTSMYVK.T R.GMQALTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TUVWSSWEPFLAR.L	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 1025. 611.8 550.2 942.4 783.
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWILETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 1025. 611.8 550.2 942.4 783. 694.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonoja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVWITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSMT1SMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHYK.H R.EDYQLGVPLLPGTFASIK.M	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 541.8 550.2 942.4 783. 694.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVPLILQFTEASIK.M K.DIHVVNFHGQTFTEEGR.E	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 544.8 550.2 942.4 783. 694.3 1031. 662.6
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 700.8 544.8 550.2 942.4 783. 694.3 1031. 662.6 619.7
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTTFEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K	669.0 414.2 1006. 486.2 913.5 937.4 1019. 1017. 717.4 700.8 1025. 611.8 550.2 942.4 783.6 694.6 1031. 662.6 619.1
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I	669.0 414.2 1006. 486.2 913.5 937.2 1019. 1017. 717.2 700.8 1025. 611.8 544.8 550.2 942.2 783. 694.5 1031. 662.6 619.7 582.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIJAR.Y	669.1 1006.4 486.2 913.3 1019.1 1017.7 177.4 703.1 544.8 550.0 942.4 1031.1 662.2 619.3 624.4 625.2 425.3 425.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I	669.144.4 1006.4 913.3 937.4 1019.1 1017.7 700.8 651.8 6942.4 783.3 6942.6 619.6 664.4 625.6 688.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALI K.KTHONDPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T	669.144.4 1006.4 9313.3 937.4 1019.1 1017.7 700.0 1025.6 611.1 783.6 694.4 662.4 662.4 663.8 664.4 668.8 668.8 668.8 668.8 668.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)ITSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHYK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)YVK.T K.NSEITASSYKK.T	669.144.4 1006.4 913.3 937.7 1019.7 700.8 1017.7 1025.5 550.0 942.4 783.3 1031.6 662.6 664.6 664.6 684.8 684
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIGFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLARL K.VFTGNINSDGHVK.H R.EDYQLGVLPLFGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.NSEITASSYKK.T	669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1 669.1
VF5a	isotig00200	99.19	VFSa-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)YVK.T K.NSEITASSYKK.	669.1 1006. 913.3 937.7 1019. 1019. 1025. 541.8 550.2 783.3 694.3 694.3 664.4 682.8 409.9 627.8 627.8 627.8 627.8 627.8
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DHLVNPHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C	669.144.4 414.4 416.6 41
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLIPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+5.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K	669.0 414.4 486.6 913.5 937.7 1017.7 717.7 702.6 611.8 544.8 783.6 643.1 662.6 664.2 669.8 669.8 669.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLIPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E	669.1 414.4 416.6 913.3 937.7 1017. 717.7 701.8 611.1 662.2 619.3 627.7 630.3 627.7 640.3 657.0 657.0 657.0 674.3 6774.3 6774.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonājā textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTFR.I	669.1 414.4 416.6 913.3 937.7 1017. 717.7 701.8 611.1 662.2 619.3 627.7 630.3 627.7 640.3 657.0 657.0 657.0 674.3 6774.3 6774.3
VF5a	isotig00200	99.19	VF5a-2	Pseudonaja textilis	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGWNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVJPLLPGTFASIK.M K.DIHVVNFHQGTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYJALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KKEHEHPWIQIDLQR.Q	669.1 414.4 416.2 913.3 937.7 1019.2 1017.7 102.5 1018.4 550.2 641.8 642.8 649.8 649.8 659.3 667.7 667.5 667.4 444.4 445.8
VFSa						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLOR.Q K.FYNRPTFR.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLOR.Q R.SYDDKSPELFKK.D	669.4 144.4 1006. 913.3 937.7 1019. 1017. 707.7 708.8 661.8 664.4 783.6 694.4 1031.6 664.4 669.6 669.6 669.6 679.6 679.6 674.4 144.4 145.6
VF5a	isotig00200	99.19	VF5a-2 Venom prothrombin activator omicarin-C non-catalytic subunit	Pseudonājā textilis Oxyurānus microlepidotus	22	R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTFR.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFKK.D R.YYDKSPELFK.K L.SETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFKK.D R.YYDKSPELFKK.D	669.044.4.4.4.4.4.6.6.4.6.4.6.4.6.4.6.4.6.4
VF5a						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HCIGIGPIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVUPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)TSMW(+15.99)TYSM K.TWNGYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TSM(+15.99)TVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYPEK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.L R.SGPTGTVQLUK.H K.IGTWLLETEVGENQER.G	669.0 414.4 486.6 913.5 937.7 701.0 1017.7 717.7 702.6 611.8 644.8 783.6 643.1 664.1 664.1 664.1 665.0
VFSa						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGWNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTFR.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.K.D R.GVYIDGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H	669.0.4 414.2 414.
VFSa						R.HSETQMHFEGNSDGTTVK.E K.SWYPPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)HTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVLPLIPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)YTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYPFK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.SWAYYSGVPEK.D	669.0 414.2 414.2 913.3 937.4 1017.1 717.4 725.5 611.8 604.3 604.3 604.3 605.7 606.2 606.3 607.7 607.2 607.2 607.2 607.3
VF5a						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLARL K.VFTGNINSDGHVK.H R.EDVQLGVLPLFGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTFR.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K R.SHETQM(+15.99)HFEGNSDGTTVK.E R.SYDDKSPELFK.C R.SYDDKSPELFK.D R.QVVITGIQTQGTVQLUK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGGYEK.H K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D	669.0444.4 486.4 913.5 937.7 1017. 717.7 702.8 611.8 694.3 694.2 425.5 688.8 694.3 425.5 690.3 474.6 486.7 474.6 486.7 474.6 486.7 4
VF5a						R.HSETQMHFEGNSDGTTVK.E K.SWYPPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVUPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNGYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYPKS.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.K C.SUMYPEK.S R.SGPTDNTEK.C R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K R.SUMYPEK.S R.SYDDTFQTPSTGGEYEK.H K.SWYYSGVNPEK.D R.GWQALFTVIDK.D R.MCALTTVIDK.D R.MCALTTVIDK.D K.HLGILGPIIR.A	669.0 414.4 486.6 913.5 937.7 1017. 717.7 702.5 611.8 544.8 783. 694.2 425.5 688.8 409.7 664.4 409.7 550.6 742.4 947.4 9
VF5a						R.HSETQMHFEGNSDGTTVK.E K.SWYFPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QVVITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMTTSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSETASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDYQLGVLPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYK.K K.EHEHPWIQIDLQR.Q K.FYNRPTFR.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.D R.QVVITGIQTQGTVQLIK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GMQALFTVIDK.D R.SYDDKSPELFK.D R.GMQALFTVIDK.D R.SYDDTFQTPSTGGEYEK.H K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.HLGILGPIIR.A K.NSEITASSYK.K	669.0444.4.4.101006.4.6.101006.4.6.101006.4.6.101006.4.6.101017.7.7.6.1010.5.1010.7.7.7.6.11.8.6.1010.6.11.8.6.1010.6.11.8.6.1010.6.11.8.6.1010.6.101
VFSa						R.HSETQMHFEGNSDGTTVK.E K.SWYPPK.S R.EDNQLGVLPLLPGTFASIK.M R.SYDDKSPELFKK.D R.QWITGIQTQGTVQLLK.H K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSMITSMYVK.T R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ITSIITQGATSM(+15.99)TTSMYVK.T R.GMQALFTVIDK.D K.HLGILGPIIR.A K.NSEITASSYK.K R.LNLEGGTNAWQPEVNNK.D K.TWWSSWEPFLAR.L K.VFTGNINSDGHVK.H R.EDVQLGVUPLLPGTFASIK.M K.DIHVVNFHGQTFTEEGR.E R.GM(+15.99)QALFTVIDK.D R.SYDDKSPELFK.K K.TWNGYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.NSEITASSYKK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.SPELFK.K K.EHEHPWIQIDLQR.Q K.FYNRPTER.I R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYPKS.S K.KEHEHPWIQIDLQR.Q R.SYDDKSPELFK.K C.SUMYPEK.S R.SGPTDNTEK.C R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K K.EHEHPWIQIDLQR.Q R.SYDDKSPELFK.K R.SUMYPEK.S R.SYDDTFQTPSTGGEYEK.H K.SWYYSGVNPEK.D R.GWQALFTVIDK.D R.MCALTTVIDK.D R.MCALTTVIDK.D K.HLGILGPIIR.A	637.8 669.0.4 114.2.4 1006.5 486.2.2 1017.7

			ACCEPTED N	IANUSCRIPT		K.DIHVVNFHGQTFTEEGR.E	662.69	3
						R.GM(+15.99)QALFTVIDK.D	619.78	
						R.EDNQLGVLPLLPGTFASIK.M	1006.57	
						K.TWNQYIALR.I	582.81	
						K.ENHIDPPIIAR.Y K.NSEITASSYKK.T	425.56 409.86	
						K.AVEPGQVYTYK.W	627.82	
						R.NLASRPYSLHAHGLLYEK.S	690.34	
						R.SGPTDNTEK.C	474.69	
						K.EHEHPWIQIDLQR.Q	567.65	
						R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S	674.28 414.19	
						K.SWYFPK.S K.KEHEHPWIQIDLQR.Q	414.19	
	FA5V_PSETE	99.19	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	K.IGTWLLETEVGENQER.G	937.49	
			,			R.SYLDDTFQTPSTGGEYEK.H	1019.42	
						K.ITSIITQGATSMTTSMYVK.T	1017.04	1 2
						K.SWAYYSGVNPEK.D	700.82	2
						K.ITSIITQGATSM(+15.99)TTSMYVK.T	1025.01	
						R.GMQALFTVIDK.D	611.87	
						K.HLGILGPIIR.A K.NSEITASSYK.K	544.87 550.27	
						R.LNLEGGTNAWQPEVNNK.D	942.45	
						K.VFTGNINSDGHVK.H	694.34	
						K.DIHVVNFHGQTFTEEGR.E	662.69	
						R.GM(+15.99)QALFTVIDK.D	619.78	2
						R.SYDDKSPELFK.K	664.78	
						R.EDNQLGVLPLLPGTFASIK.M	1006.57	
						K.TWNQYIALR.I	582.81	
						K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	425.56 688.99	
						K.NSEITASSYKK.T	409.86	
						K.AVEPGQVYTYK.W	627.82	
						K.NLASRPYSLHAHGLLYEK.S	690.34	
						R.SGPTDNTEK.C	474.69	
						K.SPELFK.K	360.72	
						K.EHEHPWIQIDLQR.Q	567.65	
						K.FYNRPTFR.I	550.8 674.28	2
						R.HSETQM(+15.99)HFEGNSDGTTVK.E K.SWYFPK.S	414.19	
						K.KEHEHPWIQIDLQR.Q	458.02	
						R.SYDDKSPELFKK.D	486.25	3
	FA5V_OXYSU	99.19	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	15	R.QVVITGIQTQGTVQLLK.H	913.53	
						K.IGTWLLETEVGENQER.G	937.49	
						R.SYLDDTFQTPSTGGEYEK.H	1019.42	
						K.ITSIITQGATSMTTSMYVK.T K.SWAYYSGVNPEK.D	1017.04 700.82	
						K.ITSIITQGATSM(+15.99)TTSMYVK.T	1025.01	
						R.GMQALFTVIDK.D	611.87	
						K.HLGILGPIIR.A	544.87	2
						K.TWWSSWEPFLAR.L	783.4	2
						K.VFTGNINSDGHVK.H	694.34	
						R.GM(+15.99)QALFTVIDK.D	619.78	
						R.EDNQLGVLPLLPGTFASIK.M		7 2
							1006.57	2
						K.TWNQYIALR.I	582.81	
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y	582.81 425.56	3
						K.TWNQYIALR.I	582.81	3
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	582.81 425.56 688.99	3 3 2
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C	582.81 425.56 688.99 627.82	3 3 2 3
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q	582.81 425.56 688.99 627.82 690.34 474.69 567.65	3 3 2 3 2 3
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19	3 3 2 3 2 3 2
VE	Es instin0000	00.21	MES	Providencja trutilia	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02	3 3 2 3 2 3 2 4
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02	3 3 2 3 2 3 2 4
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02	3 3 2 3 2 3 2 4
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44	3 3 2 3 2 3 2 4 2 4 2 2
VFS	5a isotig00200	99.21	VFSs-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TYS.M(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85	3 2 3 2 3 2 4 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TTSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84	3 2 3 2 3 2 4 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VFSa-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84	3 3 2 3 2 4 2 2 2 2 2 2 2 2
3 VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83	3 3 2 3 2 4 2 2 2 2 2 2 2 2
3 VF\$	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K	582.81 425.56 688.92 627.82 690.34 474.69 567.63 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78	3 3 2 3 2 3 2 4 2 2 2 2 2 2 2 2 2 2 2 2
3 VFS	5a isotig00200	99.21	VFSs-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VF59-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
3 VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIELQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37	3 3 2 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2
8 VFS	5a isotig00200	99.21	VF\$a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GM(ALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VETGNINISDGHVK.H R.DALSGLLGPTLR.G	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 627.83 664.78 1024.99 694.37 606.89	3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 3 3
3 VF5	5a isotig00200	99.21	VF\$a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84	3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2
: VF!	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)VVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.HULGGPIIR.G K.WTVLDTDEPTVK.D K.HULGGPIIR.G	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87	3 3 2 3 3 2 2 3 3 2 2 4 4 2 2 2 2 2 2 2
: VF!	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYM.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENGER.G R.SYLDDTTCTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVAPEK.D R.GM(ALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HGILGPIER.A K.TWNQYIALR.I K.NSEITASSYK.K	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3	3 3 2 3 3 2 4 2 2 4 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)VVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.HULGGPIIR.G K.WTVLDTDEPTVK.D K.HULGGPIIR.G	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87	3 3 2 3 3 2 2 3 3 2 2 4 4 2 2 2 2 2 2 2
VE	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VFSa-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 612.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 522.87 550.3 414.59 429.25 758.84 425.59	3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2
VF\$	5a isotig00200	99.21	VF\$a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGRY K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 664.84 582.87 550.3 414.59 429.25 758.84 425.59 667.71	3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2
VF	5a isotig00200	99.21	VFSs-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTTCTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVTYYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFAQVSINPSAVYNK.W K.SWYFPK.S	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 425.59 667.71 647.71 449.67 647.83	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VF5a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYM.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENGER.G R.SYLDDTTCTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVAPEK.D R.GM(ALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W K.SWYFKS.S	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 612.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.55 758.84 425.59 667.71	3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2
VF	5a isotig00200	99.21	VF\$a-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNIFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W K.SWYFPK.S K.NSEITASSYKK.T R.QVVITGIQTQGTVQLLK.H	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 667.71 414.22 667.71	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
VFS	5a isotig00200	99.21	VFSa-2	Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWLLETEVGENQER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W K.SWYFPK.S K.NSEITASSYKK.T R.QVUTIGIQTQGTVQLLK.H R.GILGPVIK.A	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 611.84 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 425.59 667.71 414.22 614.34 609.44 398.79	3 3 3 2 3 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2
VFS		99.21	VF5a-2	Pseudonaja textilis Pseudonaja textilis	20	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNIFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W K.SWYFPK.S K.NSEITASSYKK.T R.QVVITGIQTQGTVQLLK.H	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 667.71 414.22 667.71	3 3 2 3 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2
						K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTIR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFTQPVSIHPQSAVYNK.W K.SWYFEK.S K.NSEITASSYKK.T R.QVVITGIQTQGTVQLIK.H R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A R.GLGPVIK.A	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 425.59 667.11 414.22 614.34 609.44 398.79 309.22	3 3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	5a isotig00199	98.77	VF5a-3	Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis	4	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.SWYFPK.S K.NSEITASSYK.T R.QVUITGIQTQGTVQLLK.H R.GILGPVIK.A R.TIDIR.E K.AQYLDNFSNFIGK.K	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 612.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 522.87 550.3 414.59 429.55 667.71 414.22 614.34 609.44 398.79 309.22 758.9	3 3 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
VF9	5a isotig00199 FA5V_OXYMI FA5V_PSETE isotig00200	98.77 98.77 98.77 98.77	VF5a-3 Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	4 2 2 2	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TYSMYVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMITSM(+15.99)YVK.T K.VFTGMINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NFATQPVSIHPQSAVYNK.W K.SWYFEK.S K.NSEITASSYK.T R.QVVITGIQTQGTVQLUC.H R.GILGPVIK.A R.TIDIR.E K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.AVEPGQTYTYK.W K.AVEPGQTYTYK.W K.AVEPGQTYTYK.W K.AVEPGQTYTYK.W K.AVEPGQTYTYK.W K.WTVLDTDEPTVK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 617.83 664.78 1024.99 694.37 666.89 702.38 662.69 544.84 522.87 550.3 414.59 429.25 758.84 425.59 667.71 414.22 614.34 609.44 398.79 309.22 758.9 627.86 702.41	3 3 2 3 2 2 4 4 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2
	5a isotig00199 FASV_0XYMI FASV_PSETE isotig00200 5a isotig00199	98.77 98.77 98.77 98.77 98.77	VF5a-3 Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 VF5a-3	Pseudonaja textilis Oxyuranus microlepidatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	4 2 2 2	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.SHFATQPVSIHPQSAVYNK.W K.SWYFPK.S K.NSEITASSYKK.T R.QVVITGIQTQGTVQLLK.H R.GILGPVIK.A R.TIDIR.E K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 522.87 550.3 414.59 429.25 758.94 425.59 667.71 414.52 667.71 414.52 677.81 699.44 399.22 758.9	3 3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
VF9	5a isotig00199 FASV_OXYMI FASV_PSETE isotig00200 5a isotig00199 FASV_OXYSU	98.77 98.77 98.77 98.07 98.07	VF5a-3 Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 VF5a-3 Venom prothrombin activator Oscutarin-C non-catalytic subunit	Pseudonaja textilis Oxyuranus microlepidotus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxyuranus scutellatus	4 2 2 2 2 4 2	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.ENHIDPPIIAR.Y K.NSEITASSYKK.T R.QVVITGIQTQGTVQLLK.H R.GILGPVIK.A R.TIDIR.E K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 611.84 619.84 627.83 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 582.87 550.3 414.59 429.25 758.84 425.59 667.71 414.22 614.34 609.44 398.79 309.22 758.92 627.86	3 3 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
VF9	5a isotig00199 FASV_0XYMI FASV_PSETE isotig00200 5a isotig00199	98.77 98.77 98.77 98.77 98.77	VF5a-3 Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2 VF5a-3	Pseudonaja textilis Oxyuranus microlepidatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	4 2 2 2	K.TWNQYIALR.I K.ENHIDPPIIAR.Y K.ITSITQGATSM(+15.99)TYSM(+15.99)YVK.T K.AVEPGQVYTYK.W R.NLASRPYSLHAHGLLYEK.S R.SGPTDNTEK.C K.EHEHPWIQIDLQR.Q K.SWYFPK.S K.KEHEHPWIQIDLQR.Q K.IGTWILLETEVGENGER.G R.SYLDDTFQTPSTGGEYEK.H R.AEVDDVIEIQFR.N K.ITSIITQGATSM(+15.99)TTSMYVK.T K.SWAYYSGVNPEK.D R.GMQALFTVIDK.D R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.SYDDKSPELFK.K K.ITSIITQGATSMTTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H R.DALSGLLGPTLR.G K.WTVLDTDEPTVK.D K.DIHVVNFHGQTFTEEGR.E K.HLGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.HFFKPPILSR.F R.NPDDIAGR.Y K.AQYLDNFSNFIGK.K K.SHFATQPVSIHPQSAVYNK.W K.SWYFPK.S K.NSEITASSYKK.T R.QVVITGIQTQGTVQLLK.H R.GILGPVIK.A R.TIDIR.E K.AQYLDNFSNFIGK.K K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D	582.81 425.56 688.99 627.82 690.34 474.69 567.65 414.19 458.02 937.49 1019.44 717.4 1025.01 700.85 664.78 1024.99 694.37 606.89 702.38 662.69 544.84 522.87 550.3 414.59 429.25 758.94 425.59 667.71 414.52 667.71 414.52 677.81 699.44 399.22 758.9	3 3 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

	. 1. 00200			\triangle Nu \cup Nu			
VF5a	isotig00200 isotig00199	98.07 99.01	VF5a-2 CEFTED IVI	Pseudonaja textilis Pseudonaja textilis	6	K.AQYLDNFSNFIGK.K	758.92
	FA5V_OXYMI	99.01	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	4	K.SNVM(+15.99)YTLNGYASDR.T	803.89
	FA5V_PSETE	99.01	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	4	K.WTVLDTDEPTVK.D	702.4
	isotig00200 FA5V_OXYSU	99.01 99.01	VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit	Pseudonaja textilis Oxyuranus scutellatus	4	K.AVEPGQVYTYK.W R.DTVTIVFK.N	627.89 461.78
VF5a	isotig00199	98.82	VF5a-3	Pseudonaja textilis	6	K.AQYLDNFSNFIGK.K	758.94
*50	FA5V_PSETE	98.82	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	4	K.WTVLDTDEPTVK.D	702.38
	isotig00200	98.82	VF5a-2	Pseudonaja textilis	4	K.AVEPGQVYTYK.W	627.86
	FA5V_OXYMI	98.82	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	4	K.KKEEVPVNFVPDPESDALAK.E	553.83
VF5a	FA5V_OXYMI	99.12	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	5	K.AQYLDNFSNFIGK.K	758.9
	FA5V_PSETE	99.12	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	5	K.WTVLDTDEPTVK.D	702.3
						K.AVEPGQVYTYK.W	627.8
						K.SNVM(+15.99)YTLNGYASDR.T	803.8
						K.ADVEQHAVFAVFDENK.S R.DTVTIVFK.N	607.0 461.7
VF5a	isotig00199	91.38	VF5a-3	Pseudonaja textilis	5	K.SNVMYTLNGYASDR.T	795.7
VIJa	FA5V_PSETE	91.38	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	3	K.SWYLEDNIKK.Y	648.2
	isotig00200	91.38	VF5a-2	Pseudonaja textilis	3	K.KKEEVPVNFVPDPESDALAK.E	737.9
	FA5V_OXYMI	91.38	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	3		
HKS	HKS_HELHO	50.62	Helokinestatin-1	Heloderma h. horridum	100	GPPYQPLVPR	562.1
	HKS_HELSS	50.62	Helokinestatin-1	Heloderma s. suspectum	100		
EXE2	EXE2_HELSU	45.45	Exendin-2-long	Heloderma suspectum	11	K.YLASILGSR.T	490.
	EXE2_HELSC	45.45	Exendin-2-long	Heloderma s. cinctum	11		
HKS	HKS_HELHO	40.17	Helokinestatin-1	Heloderma h. horridum	100	GPPYQPLVPR	562.1
	HKS_HELSS	40.17	Helokinestatin-1	Heloderma s. suspectum	100		
CRISP	CRVP_HELHO	34.62	Cysteine-rich venom protein helothermine	Heloderma h. horridum	5	R.RIVEPTASNMLK.M	679.7
VF5a	isotig00199	99.13	VF5a-3	Pseudonaja textilis	14	K.NSEITASSYK.K	550.2
	FA5V_PSETE isotig00200	99.12 99.12	Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Pseudonaja textilis	5 5	K.HFFKPPILSR.F K.TWNQYIALR.I	414.5 582.7
	isotiguuzuu	99.12	VF5d-2	Pseudonaja textilis	5	K.IWNQYIALR.I K.ENHIDPPIIAR.Y	
						K.ENHIDPPIIAR.Y K.ITSIITQGATSMTTSMYVK.T	425.5 678.3
						K.VFTGNINSDGHVK.H	463.1
						K.ITSIITQGATSMTTSM(+15.99)YVK.T	683.6
	FA5V_OXYMI	99.09	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	4	K.NSEITASSYK.K	550.2
			,	,		K.HFFKPPILSR.F	414.5
						K.TWNQYIALR.I	582.7
						K.ENHIDPPIIAR.Y	425.5
						K.VFTGNINSDGHVK.H	463.3
	FA5V_OXYSU	98.99	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	4	K.TWNQYIALR.I	582.7
						K.ENHIDPPIIAR.Y	425.5
						K.ITSIITQGATSMTTSMYVK.T	678.3
						K.DSEITASSYK.K	550.6
						K.VFTGNINSDGHVK.H	463.1
				4		K.ITSIITQGATSMTTSM(+15.99)YVK.T	683.6
EXE2	EXE2_HELSC	61.04	Exendin-2-long	Heloderma s. cinctum	11	K.YLASILGSR.T	490.1
EXE2	EXE2_HELSU EXE2_HELSC	61.04 55.82	Exendin-2-long Exendin-2-long	Heloderma suspectum Heloderma s. cinctum	11 11	K.YLASILGSR.T	490.2
LALZ	EXE2_HELSU	55.82	Exendin-2-long	Heloderma suspectum	11	K. I EASIEGSK. I	430.2
CRISP	H8PG94_9SAUR	55.16	CRISP isoform 1	Suta nigriceps	3	R.NMLQMK.W	382.6
CI III SI	R4G2T2_DENDV	54.51	CRiSP-Den-3	Denisonia devisi	3		302.
	isotig00418	54.51	Cysteine-rich venom protein pseudechetoxin-like	Pseudonaja textilis	3		
			CRiSP-Pse-4	Pseudonaja modesta	3		
	R4G2J3_9SAUR	54.49	CITIST 13C 4				
	R4G2J3_9SAUR R4FIS5_9SAUR	54.49 54.49	CRISP-Pse-17	Pseudonaja modesta	3		
	_			Pseudonaja modesta Hydrophis hardwickii	3		
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA	54.49 54.49 54.49	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2	Hydrophis hardwickii Hydrophis hardwickii	3		
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI	54.49 54.49 54.49 54.49	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus	3 3 3		
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA	54.49 54.49 54.49	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2	Hydrophis hardwickii Hydrophis hardwickii	3		
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC	54.49 54.49 54.49 54.49 54.49	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus	3 3 3 3		
CRiSP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418	54.49 54.49 54.49 54.49 54.49 54.49 79.47	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis	3 3 3 3 3	R.NMLQMK.W	382.6
CRISP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1- Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta	3 3 3 3 3 3	R.NMLQMK.W	382.6
CRISP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta	3 3 3 3 3 3 3	R.NMLQMK.W	382.6
CRISP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G213_9SAUR R4FIS5_9SAUR CRVP_OXYMI	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus	3 3 3 3 3 3 3 3 3	R.NMLQMK.W	382.€
CRISP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3	R.NMLQMK.W	382.(
CRiSP	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_PSETE CRVP_OXYSC	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus	3 3 3 3 3 3 3 3 3 3 3 3	R.NMLQMK.W	382.6
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta	3 3 3 3 3 3 3 3 3 3 3		
CRISP VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_PSETE CRVP_OXYSC	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus	3 3 3 3 3 3 3 3 3 3 3 3	K.HLGILGPIIR.A	544.8
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta	3 3 3 3 3 3 3 3 3 3 3		544.8 463.1
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta	3 3 3 3 3 3 3 3 3 3 3	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H	544.8 463.3 550.2
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta	3 3 3 3 3 3 3 3 3 3 3	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K	544.8 463.1 550.2 619.8
	R4FIS5_SSAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_SSAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 79.49 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSETIASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSETIASSYKK.T K.ENHIDPPIJAR.Y	544.8 463.1 550.2 619.8 614.2
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 79.46	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta	3 3 3 3 3 3 3 3 3 3 3	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSKKT K.ENHIDPPIIAR.Y K.HLGILGPIIR.A	544.8 463.: 550.: 619.8 614.: 425.5
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G23_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.49 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cosgulation factor V	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonajo textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D	544.8 463.1 550.2 619.8 614.2 425.5 544.8 619.8
	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V Coagulation factor V	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonajo textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxyurania hydropidotas Pseudonaja textilis Ophiophagus hannah Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIIDPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W	544.8 463.1 550.2 619.8 614.2 425.5 544.8 619.8
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CriSP-Pse-11 Coagulation factor V VFSa-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textiliis Oxyuranus s. scutellatus Pseudonaja textiliis Pseudonaja textiliis Ophiophagus hannah Pseudonaja textiliis Pseudonaja textiliis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)CALETVIDK.D K.NSEITASSYKK.T K.ENHIDPPIJAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D KAVEPGQVYTYK.W R.GEVGDSLIIYFK.N	544.8 463.: 550.2 619.8 614.2 425.5 544.8 619.8 627.: 670.:
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYSC CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V Coagulation factor V	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonajo textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxyurania hydropidotas Pseudonaja textilis Ophiophagus hannah Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSYK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D	544.8 463.: 550.2 619.8 614.: 425.: 544.8 619.8 627.: 670.: 702.:
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CriSP-Pse-11 Coagulation factor V VFSa-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textiliis Oxyuranus s. scutellatus Pseudonaja textiliis Pseudonaja textiliis Ophiophagus hannah Pseudonaja textiliis Pseudonaja textiliis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTVK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTLR.G	544.8 463.: 550.2 619.8 614.2 425.: 544.8 619.8 627.: 670 702.: 606.8
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V VFSa-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textiliis Oxyuranus s. scutellatus Pseudonaja textiliis Pseudonaja textiliis Ophiophagus hannah Pseudonaja textiliis Pseudonaja textiliis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W	544.8 463.: 550.: 619.8 614.: 425.9 544.8 619.8 627.: 670.: 606.8 667.6
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V VFSa-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textiliis Oxyuranus s. scutellatus Pseudonaja textiliis Pseudonaja textiliis Ophiophagus hannah Pseudonaja textiliis Pseudonaja textiliis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTVK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTIR.G K.NFATOPVSIHPOSAVYNK.W K.VFATOPVSIHPOSAVYNK.W	544.8 463.1 550.2 619.8 614.2 425.5 544.8 619.8 627.7 702.3 606.8 667.6 589.3
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSYKK.T K.ENHIDPIIR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D	544.4 463 550 619.4 425 544.4 619.4 627 670 702 606 687 589 403
VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE	54.49 54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V VFSa-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textiliis Oxyuranus s. scutellatus Pseudonaja textiliis Pseudonaja textiliis Ophiophagus hannah Pseudonaja textiliis Pseudonaja textiliis	3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.YHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N	544.4 463 550 619.1 614 627 670 606 589 403 717
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTVK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTIR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.YKDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D	544.4 463.5 550 619.4 425 544.4 619.4 627.7 702 606.6 667.7 589 717 619.4
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)GALETVIDK.D K.NSEITASSYK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGGVVTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTIR.G K.NFATQPVSIHPOSAVVNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALETVIDK.D K.HGILGPIIR.A	544.4 463550 619.4 425 544.4 627 670 702 667 589.9 403 717 544.4
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIIVEK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALETVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W	544.4 463.550.0 619.8 614 425.5 649.4 667.7 002.3 667.7 698.8 403.3 717.3 619.8 627.7
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVBLQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLLGPTR.G	544.463.3550 619.9. 619.9. 627.7. 606.8. 667.1619.9. 544.46. 627.7. 606.8.
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIIVEK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALETVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W	544.4 463.3 550.0 619.8 619.8 425.5 644.4 619.8 667.0 589.3 717.7 670.3 667.4 667.4 667.6
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTIR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLIGPTIR.G	544.4 463.3 550 619.8 619.8 627 702.2 606.8 607.0 707.2 606.8 607.0
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALETVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTLR.G K.NFATQPVSIHPGSAVVNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALETVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLIGPTLR.G K.NFATQPUSIHPGGQVYTYK.W R.DALSGLIGPTLR.G K.NFEKPPILSR.F	544.8.4 463.1.5 500.2.6 614.8.4 425.5 544.8.6 607.7 600.8.7 607.6 667.6 667.6 627.7 606.8 429.1,4 441.5 550.0
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N KLYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLLGPTLR.G R.NPDDIAGR.Y K.HFKPPILSR.F K.NSEITASSYK.K	544.8.4 463.1.1 550.2.6 614.2.4 425.5.5 544.8.6 627.7 670.7 589.3 403.4 404.4 405.5 667.6
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLLGFTLR.G R.NPDDIAGR.Y K.HFEKPPILSR.F K.NSEITASSYK.K K.ENHIDPPIIAR.Y	544.8 463.1 550.2 425.5 544.8 627.7 702.3 667.8 667.8 647.7 171.3 647.7
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTVK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTIR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLIGPTIR.G K.NEGTERN R.GM(+15.99)CALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLIGPTIR.G R.NPDDIAGR.Y K.HFKPPILSR.F K.NSEITASSYK.K K.ENHIDPPIIAR.Y	544.8 463.1 550.2 4425.5 544.8 619.8 667.7 702.3 403.4 403.4 403.4 429.1 414.5 550.0 425.5 668.8 667.7 668.8 667.7 668.8 667.7 668.8 667.7 668.8 667.7 668.8 667.7 668.8 669.8
VF5a VF5a	R4FIS5_9SAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_PSETE CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_PSETE CRVP_OXYMI CRVP_PSETE CRVP_OXYMI FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 54.49 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like CrisP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Oxpuranus microlepidotus Pseudonaja textilis Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.YFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)GALETVIDK.D K.NSEITASSYK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)GALETVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYEK.N K.WTVLDTDEPTVK.D R.DALSGLIGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVEK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)GALETVIDK.D K.HLGILGPIIR.A K.AVEPGQVTYK.W R.DALSGLIGPTLR.G K.NSEITASSYK.K K.ENHIDPIIAGR.Y K.NSEITASSYK.K K.ENHIDPIIAGR.Y K.NSEITASSYK.K K.ENHIDPIIAR.Y K.NSEITASSYKK.T	544.8.4 463.1.1 550.2 614.2 425.5 544.8.8 627.7 702.3 619.8 627.7 606.8 429.1 414.5 550.2 425.5 647.6 668.8 667.6 668.8 667.6 668.8
VF5a VF5a	R4FIS5_SSAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom frotein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxpuranus s. scutellatus Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTLR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLLGPTLR.G R.NPDDIAGR.Y K.HFKPPILSR.F K.NSEITASSYK.K K.ENHIDPIIAR.Y K.NSEITASSYK.K K.ENHIGATSM(+15.99)TYSM(+15.99)TYK.T	544.8 463.1 550.2 425.5 544.8 667.7 670.7 702.3 667.8 667.8 667.7 606.8 429.1 414.5 662.6 668.8 429.1 414.5 668.8 429.1 425.8 425.8
VF5a VF5a	R4FIS5_SSAUR CRVP1_HYDHA CRVP2_HYDHA CRVP2_OXYMI CRVP_OXYSC isotig00418 R4G2J3_9SAUR R4FIS5_9SAUR R4FIS5_9SAUR CRVP_OXYMI CRVP_OXYMI CRVP_PSETE CRVP_OXYSC R4G7K2_9SAUR FA5_PSETE V8P243_OPHHA isotig00199 FA5V_PSETE isotig00200	54.49 54.49 54.49 54.49 79.47 79.46 79.46 79.46 79.46 79.46 99.14	CRISP-Pse-17 Cysteine-rich venom protein 1 Cysteine-rich venom protein 2 Cysteine-rich venom protein pseudechetoxin-like CRISP-Pse-4 CRISP-Pse-17 Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom protein pseudechetoxin-like Cysteine-rich venom frotein pseudechetoxin-like CRISP-Pse-11 Coagulation factor V VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Hydrophis hardwickii Hydrophis hardwickii Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Oxyuranus microlepidotus Pseudonaja textilis Oxyuranus s. scutellatus Pseudonaja textilis Oxpuranus s. scutellatus Pseudonaja textilis	3 3 3 3 3 3 3 3 3 3 4	K.HLGILGPIIR.A K.VFTGNINSDGHVK.H K.NSEITASSYK.K R.GM(+15.99)QALFTVIDK.D K.NSEITASSYKK.T K.ENHIDPPIIAR.Y K.HLGILGPIIR.A R.GM(+15.99)QALFTVIDK.D K.AVEPGQVYTYK.W R.GEVGDSLIIYFK.N K.WTVLDTDEPTVK.D R.DALSGLLGPTIR.G K.NFATQPVSIHPQSAVYNK.W K.VRDTVTIVFK.N K.LYHSAVDM(+15.99)TR.D R.AEVDDVIEIQFR.N R.GM(+15.99)QALFTVIDK.D K.HLGILGPIIR.A K.AVEPGQVYTYK.W R.DALSGLLGPTIR.G R.NPDDIAGR.Y K.HFFKPPILSR.F K.NSEITASSYK.K K.ENHIDPPIIAR.Y K.NSEITASSYK.T K.ITSIITQGATSM(+15.99)TYK.T K.ITSIITQGATSM(+15.99)TYK.T K.ITSIITQGATSM(+15.99)TYK.T K.ITSIITQGATSM(+15.99)TYK.T K.IDIHVWFHGQTFTEEGR.E	544.8 463.1 550.2 619.8 627.7 702.3 606.8 627.7 606.8 429.1 414.5 550.2 429.1 688.9 627.7 662.6 62.6 62.6 62.6 62.6 62.6 62

				ACCEPTED M	ANIISCRIPT		p.magering.	F30 ==
79	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.YIYSEENIK.K R.GEVGDSLIIYFK.N	579.77 670.84
• -				··· ··	jcnuii		K.AVEPGQVYTYK.W	627.8
							R.AEVDDVIEIQFR.N	717.36
							K.AQYLDNFSNFIGK.K	758.83
							K.WTVLDTDEPTVK.D	702.34
							R.DALSGLLGPTLR.G K.WSEGSSYSDGTSDVER.L	606.86 881.33
							R.EYVLMFSVFDESK.N	797.35
							K.TWNQYIALR.I	582.79
							K.IGTWLLETEVGENQER.G	625.3
							K.NSEITASSYK.K	550.22
							K.HLGILGPIIR.A K.SWYLEDNIK.K	544.84 584.28
							K.SWYLEDNIKK.Y	648.28
							R.GILGPVIK.A	398.72
_	EXE2	EXE2_HELSC	59.69	Exendin-2-long	Heloderma s. cinctum	11	K.YLASILGSR.T	490.23
_		EXE2_HELSU	59.69	Exendin-2-long	Heloderma suspectum	11		
	HKS	HKS_HELHO	59.84	Helokinestatin-1	Heloderma h. horridum	100	GPPYQPLVPR	562.31
80	VF5a	HKS_HELSS isotig00200	59.84 99.16	Helokinestatin-1 VF5a-2	Heloderma s. suspectum Pseudonaja textilis	100 15	R.GMQALFTVIDK.D	611.82
00	VISa	13011800200	33.10	VI 30 Z	i scadonaja textilis	15	K.SWAYYSGVNPEK.D	700.81
							R.GM(+15.99)QALFTVIDK.D	619.83
							R.AEVDDVIEIQFR.N	717.35
							K.HLGILGPIIR.A	544.83
							K.ENHIDPPIIAR.Y	425.53
							K.IGTWLLETEVGENQER.G K.TWNQYIALR.I	625.32 582.8
							K.NSEITASSYK.K	550.23
							R.NPDDIAGR.Y	429.13
							K.NSEITASSYKK.T	614.28
							K.VFTGNINSDGHVK.H	463.18
							R.SYLDDTFQTPSTGGEYEK.H K.SPELFK.K	679.94 360.63
					,		R.SPELFK.K R.DALSGLLGPTLR.G	606.87
							K.DIHVVNFHGQTFTEEGR.E	662.65
							K.AVEPGQVYTYK.W	627.82
							R.SYDDKSPELFK.K	443.42
							R.HSETQMHFEGNSDGTTVK.E	668.94
							R.SYDDKSPELFKK.D K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	486.18 689
		FA5V_OXYSU	99.16	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	10	R.GMQALFTVIDK.D	611.82
		17.51_67.156	33.10	renom production observation containing and catalytic substitute	Oxyaranas scatcinatas	10	K.SWAYYSGVNPEK.D	700.81
							R.GM(+15.99)QALFTVIDK.D	619.83
							K.HLGILGPIIR.A	544.83
							K.ENHIDPPIIAR.Y	425.53
							K.IGTWLLETEVGENQER.G	625.32
							K.TWNQYIALR.I	582.8
							K.VFTGNINSDGHVK.H R.SYLDDTFQTPSTGGEYEK.H	463.18 679.94
							K.DSEITASSYK.K	550.71
							K.DSEITASSYKK.T	614.75
							K.AVEPGQVYTYK.W	
								627.82
81							K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	627.82 689
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11		
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D	689 700.8 619.82
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N	700.8 619.82 717.35
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y	700.8 619.82 717.35 429.15
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y	689 700.8 619.82 717.35 429.15 425.53
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I	689 700.8 619.82 717.35 429.15 425.53 582.8
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y	689 700.8 619.82 717.35 429.15 425.53
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A	700.8 619.82 717.35 429.15 425.53 582.8 544.82
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALETVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G	700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95
	VF5a	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGIIGPIIR.A K.NSEITASSYK.K K.HFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSGTQMHEGGNSDGTTVK.E K.NSEITASSYKK.T	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3
	VFSa	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)YTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47
	VFSa	isotig00200	99.17	VF5a-2	Pseudonaja textilis	11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHEEGNSDGTTVK.E K.NSEITASSYKK.T K.SYDDKSPELFKK.D	700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.93 367.47 486.2
	VFSa	isotig00200	99.17			11	K.ITSIITQGATSM(+15.99)YTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47
	VF5a			VF5a-2 Venom prothrombin activator Oscutarin-C non-catalytic subunit	Pseudonaja textilis Oxyuranus scutellatus		K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALETVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYPNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H	689 700.8 619.82 717.35 429.15 425.53 582.8 544.85 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2
	VF5a						K.ITSIITQGATSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALETVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGIIGPIIR.A K.NSEITASSYK.K K.HFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 668.95 614.3 367.47 486.2 463.2
	VF5a						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHEGNSDGTTVK.E K.NSEITASSYKK.T K.PYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.83 367.47 486.2 463.2 700.8 619.82 425.53 582.8
	VF5a						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 544.82
	VF5a						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 463.2 425.53 582.8 590.8 619.82 425.53 582.8 648.9
_		FA5V_OXYSU	99.16	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	6	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2
_	VF5a	FA5V_OXYSU EXE2_HELSC	99.16	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum		K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 463.2 425.53 582.8 590.8 619.82 425.53 582.8 648.9
		FA5V_OXYSU	99.16	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	6	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2
	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2 490.25
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.TWTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T	689 700.8 619.82 717.35 429.15 425.53 582.8 550.23 414.53 625.31 367.47 486.2 700.8 619.82 425.53 582.8 448.2 625.31 463.2 490.25
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGIIGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HGIGWILLETEVGENGER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.GM(+15.99)QALFTVIDK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 425.53 582.8 544.82 625.31 463.2 490.25
	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YASILGSR.T R.GM(+15.99)QALFTVIDK.D R.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ENHIDPPIIAR.Y	689 700.8 619.82 717.35 429.15 425.53 582.8 550.23 414.53 625.31 668.95 614.3 367.47 486.2 403.2 403.2 409.25 619.82 425.53 582.8 619.82 425.53 700.81 619.82 425.53
<u> </u>	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)YTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D K.HHIDPPIIAR.Y K.TWNQYIALR.I K.HCIGIPIIR.A K.IGTWLLETEVGENQER.G R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HCIGIGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.GM(+15.99)QALFTVIDK.D R.FWRGNINSDGHVK.H K.YLASILGSR.T	689 700.8 619.82 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 490.25 619.82 717.35 700.81 425.53 582.8
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.GM(+15.99)QALFTVIDK.D R.SHOWLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T	689 700.8 619.82 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 700.8 619.82 425.53 582.8 544.82 463.2 490.25
	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGIIGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.HGHPIISR.F K.HLGILGPIIR.A	689 700.8 619.82 425.53 582.8 554.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2 490.25 619.82 717.35 619.82 717.35 619.82 717.35 625.31 625.31 625.3
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YASILGSSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.SWAYYSGVNPEK.D R.SWAYYSGVNPEK.D K.HLGILGPIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLGILGPIR.A K.HCILGPIR.A K.HCILGPIR.A K.GTWLLETEVGENQER.G K.WHTGNINSDGHVK.H K.YHCILGPIR.R.F K.HLGILGPIR.A K.IGTWLLETEVGENQER.G K.WHTGNINSDFILGR.F K.HLGILGPIR.A K.IGTWLLETEVGENQER.G K.WFTGNINSDFILGR.R K.HTERUPPILSR.F K.HLGILGPIR.A K.IGTWLLETEVGENQER.G K.AVEPGGVYTYK.W K.TWNQYIALR.I	689 700.8 619.82 429.15 425.53 582.8 550.23 414.53 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 463.2 490.25 619.82 717.35 700.81 619.82 425.53 625.31 463.2 490.25
	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGIIGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.HLGILGPIIR.A K.HGHPIISR.F K.HLGILGPIIR.A	689 700.8 619.82 425.53 582.8 554.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2 490.25 619.82 717.35 619.82 717.35 619.82 717.35 625.31 625.31 625.3
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.HEFKPPILSR.F K.HLGILGPIIR.A K.JGTWLLETEVGENQER.G K.YFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ENHIDPPIIAR.Y K.HEFKPPILSR.F K.HLGILGPIIR.A K.JGTWLLETEVGENQER.G K.AVEPGQVYTYK.W K.TWNQYIALR.I R.SYLDDTFQTPSTGGEYEK.H	689 700.8 619.82 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 490.25 619.82 717.35 700.81 425.53 627.82 544.83 625.31 625.31 625.31
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.ENHIDPPIIAR.Y K.HEGILGPIIR.A K.IGTWLLETEVGENQER.G K.AVEPGQVYTYK.W K.TWNQYIALR.I R.SYLDDTFCITPSTGGEYEK.H K.NSEITASSYK.K	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 490.25 619.82 7700.8 619.82 425.53 582.8 544.82 625.31 463.2 490.25 619.82 717.35 700.81 425.52 414.52 544.83 625.3 627.82 554.83 627.82 550.23
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.SWAYYSGVNPEK.D K.SHLDPPIIAR.Y K.HEKPEPILSR.F K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.AVEPGQVYTYK.W K.TWNQYIALR.I R.SYLDDTFQTPSTGGEYEK.H K.NSEITASSYK.K K.VFTGNINSDGHVK.H R.GMQALFTVIDK.D R.GMQALFTVIDK.D K.ITSIITQGATSM(+15.99)YVK.T	689 700.8 619.82 425.53 582.8 544.82 550.23 414.53 668.95 614.3 367.47 486.2 700.8 619.82 425.53 582.8 544.82 625.31 463.2 490.25 619.82 717.35 619.82 717.35 625.31 625.31 625.31 625.31 625.31
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENQER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTFR.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.FHKPPIISR.F K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.SHIDPPIIAR.Y K.HEKPPIISR.F K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.AVEPGQVYTYK.W K.TWNQYIALR.I R.SYLDDTFQTPSTGGEVEK.H K.NSEITASSYK.K K.VFTGNINSDGHVK.H R.GMQALFTVIDK.D K.ITSIITQGATSM(+15.99)YVK.T K.FYNRPTFR.I	689 700.8 619.82 717.35 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 490.25 619.82 717.35 700.81 425.53 625.81 625.31 625.36 627.82 649.25
82	EXE2	FASV_OXYSU EXE2_HELSC EXE2_HELSU	99.16 60.48 60.48	Venom prothrombin activator Oscutarin-C non-catalytic subunit Exendin-2-long Exendin-2-long Exendin-2-long	Oxyuranus scutellatus Heloderma s. cinctum Heloderma suspectum	6 11 11	K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N R.NPDDIAGR.Y K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.NSEITASSYK.K K.HFFKPPILSR.F K.IGTWLLETEVGENGER.G R.HSETQMHFEGNSDGTTVK.E K.NSEITASSYKK.T K.FYNRPTER.I R.SYDDKSPELFKK.D K.VFTGNINSDGHVK.H K.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D K.ENHIDPPIIAR.Y K.TWNQYIALR.I K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.VFTGNINSDGHVK.H K.YLASILGSR.T R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D R.SWAYYSGVNPEK.D R.GM(+15.99)QALFTVIDK.D R.AEVDDVIEIQFR.N K.SWAYYSGVNPEK.D K.SWAYYSGVNPEK.D K.SHLDPPIIAR.Y K.HEKPEPILSR.F K.HLGILGPIIR.A K.IGTWLLETEVGENQER.G K.AVEPGQVYTYK.W K.TWNQYIALR.I R.SYLDDTFQTPSTGGEYEK.H K.NSEITASSYK.K K.VFTGNINSDGHVK.H R.GMQALFTVIDK.D R.GMQALFTVIDK.D K.ITSIITQGATSM(+15.99)YVK.T	689 700.8 619.82 429.15 425.53 582.8 544.82 550.23 414.53 625.31 668.95 614.3 367.47 486.2 463.2 490.25 619.82 425.53 582.8 625.31 463.2 490.25 619.82 717.35 700.8 619.82 625.31 627.82 625.31 63.2 640.66 611.78 688.99

VF5a							
	isotig00200	99.17	VP5a2CEPTED M	A Pseudonaja textilis	15	K.SWAYYSGVNPEK.D	700.8
						R.GM(+15.99)QALFTVIDK.D	619.83
						R.AEVDDVIEIQFR.N	717.34
						R.GMQALFTVIDK.D	611.81
						K.IGTWLLETEVGENQER.G	625.29
						R.NPDDIAGR.Y K.ENHIDPPIIAR.Y	429.14 425.52
						K.DIHVVNFHGQTFTEEGR.E	662.62
						K.HLGILGPIIR.A	544.82
						K.HFFKPPILSR.F	414.53
						K.TWNQYIALR.I	582.81
						R.DALSGLLGPTLR.G	606.85
						K.AVEPGQVYTYK.W	627.81
						K.NSEITASSYK.K	550.23
						K.VFTGNINSDGHVK.H	463.18
						R.SYLDDTFQTPSTGGEYEK.H	679.94
						K.NSEITASSYKK.T	614.28
						R.HSETQMHFEGNSDGTTVK.E	668.94
						K.SWYFPK.S	414.16
						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	688.98
-	FA5V_OXYMI	99.17	Venom prothrombin activator omicarin-C non-catalytic subunit	Oxyuranus microlepidotus	12	K.SWAYYSGVNPEK.D	700.8
						R.GM(+15.99)QALFTVIDK.D	619.83
						R.GMQALFTVIDK.D	611.81
						K.IGTWLLETEVGENQER.G	625.29
						K.ENHIDPPIIAR.Y	425.52
						K.DIHVVNFHGQTFTEEGR.E	662.62
						K.HLGILGPIIR.A	544.82
						K.HFFKPPILSR.F	414.53
						K.TWNQYIALR.I	582.81
						K.AVEPGQVYTYK.W	627.81
						K.NSEITASSYK.K K.VFTGNINSDGHVK.H	550.23 463.18
						R.SYLDDTFQTPSTGGEYEK.H	679.94
						K.NSEITASSYKK.T	614.28
						R.HSETQMHFEGNSDGTTVK.E	668.94
						K.SWYFPK.S	414.16
VF5a	isotig00200	99.15	VF5a-2	Pseudonaja textilis	18	R.GM(+15.99)QALFTVIDK.D	619.82
	-					R.AEVDDVIEIQFR.N	717.34
						R.GMQALFTVIDK.D	611.82
						K.SWAYYSGVNPEK.D	700.79
						R.SYLDDTFQTPSTGGEYEK.H	1019.4
						K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	1032.98
						K.ITSIITQGATSMTTSM(+15.99)YVK.T	683.64
						K.IGTWLLETEVGENQER.G	625.31
						K.DIHVVNFHGQTFTEEGR.E	662.66
						R.SYDDKSPELFK.K	664.8
						K.ENHIDPPIIAR.Y	425.5
						K.ITSIITQGATSM(+15.99)TTSMYVK.T	1025
				7		K.HLGILGPIIR.A K.TWNQYIALR.I	544.87 582.8
						K. I WNQYIALK.I K.NSEITASSYK.K	582.8 550.21
						K.NSEITASSYKK.T	614.27
						K.EHEHPWIQIDLQR.Q	567.6
						R.HSETQMHFEGNSDGTTVK.E	668.93
						K.SPELFK.K	
							360.64
						K.SWYFPK.S	
						K.SWYFPK.S R.SGPTDNTEK.C	414.15
							414.15 474.66
						R.SGPTDNTEK.C	414.15 474.66 309.14
						R.SGPTDNTEK.C R.TIDIR.E	414.15 474.66 309.14 694.24
						R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D	414.15 474.66 309.14 694.24 414.48 486.18
						R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I	414.15 474.66 309.14 694.24 414.48 486.18 367.44
-						R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34
-	FA5V_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALETVIDK.D R.GMQALETVIDK.D	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D	414.1! 474.60 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.75
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALETVIDK.D R.GMQALETVIDK.D	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 700.75 1019.4
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.SMAVYSGVNPEK.D R.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H	414.1! 474.66 309.1- 694.2- 414.44 486.1! 367.4- 690.3- 619.8: 700.75 1019.4
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFGTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T	414.1! 474.6i 309.14 694.24 414.4i 486.1i 367.44 690.34 611.82 700.79 1019.4 1032.9 683.64
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T	414.1! 474.6i 309.1- 694.2- 414.4i 486.1! 367.4- 690.3- 611.8: 700.79 1019 1032.9 683.6- 625.3:
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.SMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHQGTFTEEGR.E R.SYDDKSPELFK.K	414.1! 474.60 309.1- 694.2- 414.44 486.18 367.4- 690.3- 611.8: 700.7' 1019.4 1032.9 683.66 625.3: 662.66 664.8
	FA5V_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y	414.1! 474.60 309.1- 694.2- 414.44 486.1! 367.4- 690.3- 611.8: 700.75 1019.4 1032.9 683.6- 625.3: 662.6: 664.8 425.5
	FA5V_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.SMAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.ITSIITQGATSMTTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIJAR.Y K.TWWSSWEPSLAR.L	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.72 1032.9 683.64 625.33 662.66 664.8 425.5
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TSM(+15.99)	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 611.82 700.75 1019.4 1032.9 683.66 625.31 662.66 664.8 425.5 753.33 1025
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonoja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.ISIITQGATSMTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T	414.15 474.66 309.14 694.24 414.48 486.18 367.44 619.82 700.75 1019.4 1032.9 683.64 625.33 662.66 664.8 425.5 753.35 1025 544.87
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTTFEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TYSMYK.T K.HLGIIGPIIR.A K.TWNQYIALR.I	414.15 474.66 309.14 694.22 414.48 486.18 367.44 619.82 611.82 700.75 1019.4 1032.9 683.64 625.3 1662.66 664.8 425.5 753.3 1025 544.87 582.8
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TSM(+15.99)VVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLAR.L K.ITSITQGATSM(+15.99)TTSMYVK.T K.HGLIGPIIR.A K.TWWSSWEPSLAR.L K.ITSITQGATSM(+15.99)TTSMYVK.T	544.87 582.8 550.21
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.ITSIITQGATSMTTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIJAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HGILGPIJR.A K.TWWQYJALR.I K.NSEITASSYKK.K K.NSEITASSYKK.K	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 611.82 700.75 1019.4 1032.96 625.31 662.66 64.8 425.5 753.33 1025 544.87 550.21 614.27
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TSMYK.T K.HCGILGPIR.A K.TWWSYMEPSLARL K.ITSIITQGATSM(+15.99)TSMYVK.T K.HLGILGPIR.A K.TWWSYMEPSLARL K.TSIITQGATSM(+15.99)TSMYVK.T K.HLGILGPIR.A K.TWNSYMEPSLARL K.NSEITASSYK.K K.NSEITASSYKK.T K.EHEHPWIQIDLQR.Q	414.15 474.66 309.14 694.24 414.48 486.18 367.44 619.82 611.82 700.79 1019.4 1032.93 683.64 625.53 753.33 1025 544.87 582.8 550.21 614.27 567.6
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTTFEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HLGIGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYKK.T K.EHEHPWIQIDLQRQ R.HSETQMHFEGNSDGTTVK.E	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.79 1019.4 1032.91 683.64 625.31 662.66 664.8 425.5 753.33 1025 544.87 582.8 550.21 614.27 567.6 668.93
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIJAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HGILGPIJR.A K.TWNGSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HLGILGPIJR.A K.TWNGYJALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.SPELFK.K K.SPELFK.K	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 611.82 611.82 611.82 625.31 662.66 664.8 425.5 753.33 1025 548.87 550.21 614.27 567.6 668.99 360.64
•	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)VK.T K.ITSIITQGATSMTTSM(+15.99)VK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIJAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TSMYVK.T K.HGILGPIJR.A K.TWNQYJALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.T K.EHEHPWIQIDLQR.Q R.HSETQMHFEGNSDGTTVK.E K.SPLIPK.K R.EDNQLGVLPLLPGTFASIK.M	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.75 1019.4 1032.9 683.64 625.31 662.66 664.8 425.5 753.33 1025 544.87 550.21 614.27 567.6 668.93 360.66 671.37
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.ITSIITQGATSMTTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWVSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TSMYVK.T K.HLGILGPIIR.A K.TWWQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.T K.EHEHPWIQIDLQR.Q R.HSETQMHFEGNSDGTTVK.E K.SPELFK.K R.EDNQLGVILLPGTFASIK.M K.SWYFPK.S	414.15 474.66 309.14 489.12 414.48 486.18 367.44 690.32 611.82 700.75 1019.4 1032.9 683.64 625.5 753.33 1025 544.87 582.8 550.21 614.22 567.6 668.9 360.64 671.33 414.15
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonoja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HLGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.SPELFK.K R.EDNQLUPLLIPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.79 1019.4 1032.91 683.64 625.53 1025 544.87 582.8 550.21 664.8 668.93 360.64 671.37 414.15
-	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHQQTFTEGR.E R.SYDDKSPELFK.K K.ENHIDPPIIAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HGILGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.T K.EHEHPWIQIDLQR.Q R.HSETQMHFEGNSDGTTVK.E K.SPELFK.K R.EDNQLGVIPLLPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C R.TIDIR.E	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.34 619.82 611.82 700.79 1019.4 1032.9] 683.64 425.5 753.33 1025 544.87 544.87 550.21 614.27 567.6 668.93 360.64 671.37 414.15 474.66 309.14
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.ITSIITQGATSMTTSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIJAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TSMYVK.T K.HGILGPIIR.A K.TWNQYJALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.T K.EHEHPWIQIDLOR.Q R.HSETQMHFEGNSDGTTVK.E K.SPYEPK.S R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H	414.15 474.66 474.66 309.14 486.18 486.18 367.44 690.34 619.82 611.82 611.82 610.79 1019.4 1032.91 683.64 625.31 662.66 664.83 550.21 614.27 567.6 668.93 360.64 671.37 414.15 474.66
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D K.SWAYYSGVNPEK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.IGTWLLETEVGENQER.G K.DIHVVNFHGQTFTEEGR.E R.SYDDKSPELFK.K K.ENHIDPPIAR.Y K.TWWSWEPSLAR.L K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.HGILGGATSM(+15.99)TSM(+15.99)YVK.T K.ENHIDPPIAR.Y K.TWWSWEPSLAR.L K.TWHOGATSM(+15.99)TSMYVK.T K.HGILGPIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.SPELFK.K R.EDNQLGVLPLPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F	414.15 474.66 309.14 486.18 367.44 619.82 611.82 700.79 1019.4 1032.90 683.64 625.55 664.8 425.5 753.33 1025 544.87 582.8 550.21 614.27 567.6 668.93 360.64 671.37 414.15 474.66 309.14 694.24 414.48
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TTSMYWK.T K.HLGIGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K R.EDNQLUPLLPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D	414.15 474.66 494.24 414.48 486.18 367.44 690.34 619.82 611.82 700.79 1019.4 1032.91 683.64 625.53 1025 544.87 582.8 550.21 644.27 567.6 668.93 360.64 671.37 414.15 474.66 309.14 694.24 414.48 486.18
	FASV_PSETE	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.SMQALFTVIDK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TSM(+15.99)YVK.T K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.ITSIITQGATSMTSM(+15.99)YVK.T K.ITSIITQGATSMTSM(+15.99)TYSM(+15.99)YVK.T K.ITSIITQGATSMTSM(+15.99)TTSMYVK.T K.ENHIDPPIIAR.Y K.TWWSSWEPSLAR.L K.ITSIITQGATSM(+15.99)TTSMYVK.T K.HGILGPIIR.A K.TWWSSWEPSLAR.L K.TSIITQGATSM(+15.99)TTSMYVK.T K.HGLGIPIR.A K.TWWSSWEPSLAR.L K.TSIITQGATSM(+15.99)TTSMYVK.T K.HGLGIPIR.A K.TWWSSWEPSLAR.L K.TSIITQGATSM(+15.99)TTSMYVK.T K.HELGUPIR.A K.TWPGYIAR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.T K.EHEHPWIQIDLQR.Q R.HSETQMHFEGNSDGTTVK.E K.SPELFK.K R.EDNQLGVLPLLPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTFR.I	414.15 474.66 309.14 694.24 414.48 486.18 367.44 690.32 611.82 700.79 1019.4 1032.9] 683.64 425.5 753.33 1025 544.87 582.8 550.21 664.27 567.6 668.93 360.64 671.37 414.15 474.66 309.14 694.24 414.48 486.18 367.44
	FASV_DXYSU	99.15	Venom prothrombin activator pseutarin-C non-catalytic subunit Venom prothrombin activator Oscutarin-C non-catalytic subunit	Pseudonaja textilis Oxyuranus scutellatus	19	R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D K.FYNRPTER.I R.NLASRPYSLHAHGLLYEK.S R.GM(+15.99)QALFTVIDK.D R.GMQALFTVIDK.D R.SYLDDTFQTPSTGGEYEK.H K.ITSIITQGATSM(+15.99)YVK.T K.ENHIDPPIIAR.Y K.TWWSSWEPSLARL K.ITSIITQGATSM(+15.99)TTSMYWK.T K.HLGIGPIIR.A K.TWNQYIALR.I K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K K.NSEITASSYK.K R.EDNQLUPLLPGTFASIK.M K.SWYFPK.S R.SGPTDNTEK.C R.TIDIR.E K.VFTGNINSDGHVK.H K.HFFKPPILSR.F R.SYDDKSPELFKK.D	414.15 474.66 494.24 414.48 486.18 367.44 690.34 619.82 611.82 700.79 1019.4 1032.91 683.64 625.53 1025 544.87 582.8 550.21 644.27 567.6 668.93 360.64 671.37 414.15 474.66 309.14 694.24 414.48 486.18

				ACCEPTED M	IANUSCRIPT		R.SYLDDTFQTPSTGGEYEK.H	1019.4
							K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	1032.98
							K.ITSIITQGATSMTTSM(+15.99)YVK.T	683.64
							K.IGTWLLETEVGENQER.G K.ENHIDPPIIAR.Y	625.31 425.5
							K.ENHIDPPIIAK.T K.ITSIITQGATSM(+15.99)TTSMYVK.T	1025
							K.HLGILGPIIR.A	544.87
							K.TWNQYIALR.I	582.8
							K.DSEITASSYK.K	550.7
							K.EHEHPWIQIDLQR.Q	567.6
							R.EDNQLGVLPLLPGTFASIK.M	671.37
							K.DSEITASSYKK.T	614.78
							K.SWYFPK.S	414.15
							R.SGPTDNTEK.C R.TIDIR.E	474.66 309.14
							K.VFTGNINSDGHVK.H	694.24
							R.NLASRPYSLHAHGLLYEK.S	690.34
٧	/F5a	isotig00200	99.16	VF5a-2	Pseudonaja textilis	15	K.AQYLDNFSNFIGK.K	758.85
							R.GEVGDSLIIYFK.N	670.83
							K.AVEPGQVYTYK.W	627.81
							R.DALSGLLGPTLR.G	606.84
							R.AEVDDVIEIQFR.N	717.34
							K.WTVLDTDEPTVK.D K.NSEITASSYK.K	702.35 550.23
							K.HLGILGPIIR.A	544.81
							K.HLQAGM(+15.99)YGYLNIK.D	508.55
							K.ENHIDPPIIAR.Y	425.53
							R.EYELDFK.Q	472.17
							K.NFATQPVSIHPQSAVYNK.W	667.67
							K.HFFKPPILSR.F	414.54
							K.LYHSAVDM(+15.99)TR.D	403.46
							K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T R.GILGPVIK.A	688.99 398.72
							K.GILGPVIK.A K.DIHVVNFHGQTFTEEGR.E	662.65
							K.TWNQYIALR.I	582.8
							K.ITSIITQGATSMTTSMYVK.T	678.32
							K.NSEITASSYKK.T	614.27
		FA5_PSETE	99.16	Coagulation factor V	Pseudonaja textilis	12	K.AQYLDNFSNFIGK.K	758.85
							K.AVEPGQVYTYK.W	627.81
							K.WTVLDTDEPTVK.D	702.35
							K.NSEITASSYK.K K.HLGILGPIIR.A	550.23 544.81
							K.HLQAGM(+15.99)YGYLNIK.D	508.55
							K.ENHIDPPIIAR.Y	425.53
							R.EYELDFK.Q	472.17
							K.NFATQPVSIHPQSAVYNK.W	667.67
							K.HFFKPPILSR.F	414.54
							K.LYHSAVDM(+15.99)TR.D	403.46
					7		K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	688.99
							K.DIHVVNFHGQTFTEEGR.E K.TWNQYIALR.I	662.65 582.8
							K.ITSIITQGATSMTTSMYVK.T	678.32
							K.NSEITASSYKK.T	614.2
٧	/F5a	isotig00199	99.17	VF5a-3	Pseudonaja textilis	12	R.GEVGDSLIIYFK.N	670.93
							K.AQYLDNFSNFIGK.K	758.93
							K.AVEPGQVYTYK.W	627.8
							K.WTVLDTDEPTVK.D	702.42
							R.DALSGLLGPTLR.G K.WSEGSSYSDGTSDVER.L	606.9 881.4
							R.EYVLMFSVFDESK.N	797.4
							K.NFATQPVSIHPQSAVYNK.W	667.7
Е	EXE4	EXE4_HELSU	61.05	Exendin-4	Heloderma suspectum	14	R.HGEGTFTSDLSK.Q	639.8
		EXE4_HELSC	61.05	Exendin-4	Heloderma s. cinctum	14		
Е	EXE2	EXE2_HELSC	60.99	Exendin-2-long	Heloderma s. cinctum	11	K.YLASILGSR.T	490.3
		EXE2_HELSU	60.99	Exendin-2-long	Heloderma suspectum	11		
V	/F5a	isotig00199	99.17	VF5a-3	Pseudonaja textilis	11	K.AQYLDNFSNFIGK.K	758.9
		FA5V_PSETE	99.17	Venom prothrombin activator pseutarin-C non-catalytic subunit VF5a-2	Pseudonaja textilis	7 7	R.GEVGDSLIIYFK.N	670.9
		isotig00200	99.17	VF5d-Z	Pseudonaja textilis	,	R.DALSGLLGPTLR.G K.AVEPGQVYTYK.W	606.9 627.8
							K.AVEPGQVYTYK.W K.WTVLDTDEPTVK.D	702.4
							K.WSEGSSYSDGTSDVER.L	881.4
							K.NLASRPYSIYVHGVSVSK.D	659.7
							R.EYELDFK.Q	472.2
	/F5a	isotig00199	55.02	VF5a-3	Pseudonaja textilis	2	R.SGPTDNTEK.C	474.7
٧		FA5V_OXYSU	54.91	Venom prothrombin activator Oscutarin-C non-catalytic subunit	Oxyuranus scutellatus	1		
٧		FA5_PSETE	54.91	Coagulation factor V	Pseudonaja textilis	1		
V		FA5V_OXYMI	54.91 54.91	Venom prothrombin activator omicarin-C non-catalytic subunit Venom prothrombin activator pseutarin-C non-catalytic subunit	Oxyuranus microlepidotus Pseudonaja textilis	1 1		
V		EASI/ DOCTE	54.91	venom protnrombin activator pseutarin-c non-catalytic subunit VF5a-2	Pseudonaja textilis Pseudonaja textilis	1		
V		FA5V_PSETE isotig00200	54 91			0		
V		isotig00200	54.91 54.85		Opniophagus nannan			
	/F5a			Coagulation factor V Venom prothrombin activator pseutarin-C non-catalytic subunit	Ophiophagus hannah Pseudonaja textilis	8	K.IGTWLLETEVGENQER.G	937.52
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	K.IGTWLLETEVGENQER.G R.GM(+15.99)QALFTVIDK.D	
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8		619.9
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H	619.93 1033.3 694.3
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLAR.L	619.93 1033.3 694.33 753.43
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLAR.L K.TWNQYIALR.I	619.93 1033.3 694.33 753.43 582.9
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLAR.L K.TWNQYIALR.I K.NSEITASSYKK.T	619.92 1033.1 694.37 753.42 582.9 614.38
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)YVK.T K.VFTGMINSDGHVK.H K.TWWSSWEPSLAR.L K.TWNQYIALR.I K.NSEITASSYKK.T K.HFFKPPILSR.F	619.92 1033.1 694.37 753.42 582.9 614.38 414.62
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)YVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLARL K.TWNQYIALR.I K.NSEITASSYKK.T K.HFFKPPILSR.F K.NSEITASSYK.K	619.92 1033.1 694.37 753.42 582.9 614.38 414.62 550.31
	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		8	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLAR.L K.TWNQYIAIR.I K.NSEITASSYKK.T K.HFFKPPILSR.F K.NSEITASSYK.K K.DIHVVNFHGQTFTEEGR.E R.GMQALFTVIDK.D	619.92 1033.1 694.37 753.42 582.9 614.38 414.62 550.31 662.74
V	/F5a	isotig00200 V8P243_OPHHA	54.85	Coagulation factor V		9	R.GM(+15.99)QALFTVIDK.D K.ITSIITQGATSM(+15.99)TYSM(+15.99)YVK.T K.VFTGNINSDGHVK.H K.TWWSSWEPSLAR.L K.TWWSYIALR.I K.NSEITASSYKK.T K.HFKPPILSR.F K.NSEITASSYK.K K.DIHVVNFHGQTFTEEGR.E	937.52 619.92 1033.1 694.37 753.42 582.9 614.38 414.62 550.31 662.74 611.93

		EXE2_HELSU	61.65	Exendin-2-long EPTED M	A Heloderma suspectum	11		
	VF5a	isotig00200	99.13	VF5a-2	Pseudonaja textilis	3	R.AEVDDVIEIQFR.N	717.46
							K.HLGILGPIIR.A R.SYLDDTFQTPSTGGEYEK.H	544.93 1019.51
-	PLA2	PA2B2_NAJMO	61	Basic phospholipase A2 CM-II	Naja mossambica	9	R.YIDANYNINLK.E	670.92
!	VF5a	isotig00199	99.12	VF5a-3	Pseudonaja textilis	8	R.GEVGDSLIIYFK.N	670.95
		isotig00200	99.12	VF5a-2	Pseudonaja textilis	5	R.DALSGLLGPTLR.G	606.89
							K.HLQAGM(+15.99)YGYLNIK.D	762.47
							R.EYELDFK.Q	472.25
							R.LDDAVPPGQSFK.Y	637.39
_		EVES HEIGS	C4 5	5 1: 21		11	R.EYVLM(+15.99)FSVFDESK.N	805.44
	EXE2	EXE2_HELSC EXE2_HELSU	61.5 61.5	Exendin-2-long Exendin-2-long	Heloderma s. cinctum Heloderma suspectum	11	K.YLASILGSR.T	490.33
}	VF5a	isotig00200	99.16	VF5a-2	Pseudonaja textilis	6	R.SYLDDTFQTPSTGGEYEK.H	1019.51
					,		K.HLGILGPIIR.A	544.92
							R.AEVDDVIEIQFR.N	717.46
							R.GEVGDSLIIYFK.N	670.94
							R.DALSGLLGPTLR.G	606.91
_		EVE2 115100	54.33	5 1: 21			R.NLASRPYSLHAHGLLYEK.S	690.43
	EXE2	EXE2_HELSC EXE2_HELSU	61.22 61.22	Exendin-2-long Exendin-2-long	Heloderma s. cinctum Heloderma suspectum	11 11	K.YLASILGSR.T	490.34
	VF5a	FA5V_PSETE	99.16	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	5	R.GEVGDSLIIYFK.N	670.91
	*1.50	isotig00200	99.16	VF5a-2	Pseudonaja textilis	5	R.DALSGLLGPTLR.G	606.93
							K.DIHVVNFHGQTFTEEGR.E	662.72
							K.AQYLDNFSNFIGK.K	758.92
							K.HFFKPPILSR.F	414.61
_							K.VFTGNINSDGHVK.H	463.25
	EXE2	EXE2_HELSC	61.42	Exendin-2-long	Heloderma s. cinctum	11	K.YLASILGSR.T	490.32
	VFF-	EXE2_HELSU	61.42	Exendin-2-long	Heloderma suspectum	11	P CM/115 00/04/57/10// 0	610.00
	VF5a	isotig00199 FA5V_PSETE	99.16 99.16	VF5a-3 Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis Pseudonaja textilis	12 4	R.GM(+15.99)QALFTVIDK.D K.DIHVVNFHGQTFTEEGR.E	619.91 662.72
		isotig00200	99.16	venom protnrombin activator pseutarin-c non-catalytic subunit VF5a-2	Pseudonaja textilis Pseudonaja textilis	4	K.DIHVVNFHGQTFTEEGR.E K.NSEITASSYKK.T	614.36
		.550800200	33.10	VI 30 Z	. seadonaja textilis		K.ENHIDPPIIAR.Y	425.6
							K.HFFKPPILSR.F	414.61
	VF5a	isotig00199	99.11	VF5a-3	Pseudonaja textilis	10	R.GM(+15.99)QALFTVIDK.D	619.89
		FA5V_PSETE	99.1	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	3	K.ENHIDPPIIAR.Y	425.61
		isotig00200	99.1	VF5a-2	Pseudonaja textilis	3	K.HFFKPPILSR.F	414.61
							K.ITSIITQGATSM(+15.99)TTSM(+15.99)YVK.T	1033.08
	BPTI	IVBI2_PSETT	61.21	Protease inhibitor textilinin-2	Pseudonaja t. textilis	17	R.FPSFYYNPDEQK.C	767.92
		:	50.75		0 1 1 1 1 1 1 1	20	R.VRFPSFYYNPDEQK.C	597.37
		isotig00172	60.76	Protease inhibitor textilinin-1 truncated transcript	Pseudonaja textilis	20	R.FPSFYYNPDEK.S	703.91
	BPTI	IVBI1_PSETT IVBI1_PSETT	60.76 61.55	Protease inhibitor textilinin-1 Protease inhibitor textilinin-1	Pseudonaja t. textilis Pseudonaja t. textilis	13 17	R.FPSFYYNPDEK.K	703.88
	BPII	IARIT_EZELI	61.55	Protease inhibitor textilinin-1	Pseudonaja t. textiiis	17	R.FPSFTYNPDEK.K R.VRFPSFYYNPDEK.K	554.65
							R.FPSFYYNPDEKK.C	767.95
		IVBI2_PSETT	61.54	Protease inhibitor textilinin-2	Pseudonaja t. textilis	17	R.FPSFYYNPDEQK.C	512.29
							R.VRFPSFYYNPDEQK.C	597.38
	PLA2	PA2B2_NAJMO	61.66	Basic phospholipase A2 CM-II	Naja mossambica	9	R.YIDANYNINLK.E	670.91
	EXE2	EXE2_HELSC	60.79	Exendin-2-long	Heloderma s. cinctum	11	K.YLASILGSR.T	490.34
	DI 42	EXE2_HELSU	60.79	Exendin-2-long	Heloderma suspectum	11	V OCCUTAVES DE C	504.00
	PLA2	isotig00264 isotig00263	61.52 61.52	Acidic PLA2-A4 Acidic PLA2-A3	Pseudonaja textilis Pseudonaja textilis	8	K.GGSGTPVDELDR.C	601.82
		PA226_MICAT	61.52	phospholipase A2	Micrurus altirostris	9		
		R4FIM5_9SAUR	61.52	PLA2-Hop-9	Hoplocephalus bungaroides	8		
		PA2A1_AUSSU	61.52	Acidic phospholipase A2 S1-11	Austrelaps surbus	8		
		PA2B_BUNCE	61.52	Basic phospholipase A2 KPA2	Bungarus caeruleus	8		
		PA2PA_OXYMI	61.52	Basic phospholipase A2 paradoxin-like alpha chain	Oxyuranus microlepidotus	8		
		PA2A2_PSETE	61.52	Acidic phospholipase A2 2	Pseudonaja textilis	8		
		R4G2S8_DENDV	61.52	PLA-2-Den-2	Denisonia devisi	8		
	<u> </u>	R4G2S8_DENDV R4FIQ4_9SAUR	61.52	PLA2-Pse-8	Pseudonaja modesta	8	WANT CONTRACT	- CO1 -
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146	61.52 84.07	PLA2-Pse-8 Venom CLect-2	Pseudonaja modesta Pseudonaja textilis	8 11	K.YM(+15.99)WEWTDR.S	601.84
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147	61.52 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis	8 11 11	R.SRTDFLLWR.K	597.4
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR	84.07 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta	8 11 11 11	R.SRTDFLLWR.K K.YMWEWTDR.S	597.4 593.81
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147	61.52 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis	8 11 11	R.SRTDFLLWR.K	597.4
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR	84.07 84.07 84.07 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11	R.SRTDFLLWR.K K.YMWEWTDR.S	597.4 593.81
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR	84.07 84.07 84.07 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11	R.SRTDFLLWR.K K.YMWEWTDR.S	597.4 593.81
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00145 isotig00148 LECG1_BUNFA	61.52 84.07 84.07 84.07 84.07 84.07	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis	8 11 11 11 11 11 11 10	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S	597.4 593.81 475.79
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00145 isotig00148 LECG1_BUNFA LECG_PSEPO	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonajo textilis Bungarus fasciatus Pseudechis porphyriacus	8 11 11 11 11 11 11 10 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K	597.4 593.81 475.79
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR isotig00145 isotig00145 isotig00148 LECG_BUNFA LECG_PSEPO LECG_PSEAU	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonoja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis	8 11 11 11 11 11 11 10 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S	597.4 593.81 475.79
		R4G2S8_DENDV R4FIC4_9SAUR isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00145 isotig00148 LECG1_BUNFA LECG_PSEAU LECG_PSEAU LECG_BSEAU	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus	8 11 11 11 11 11 11 10 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K	597.4 593.81 475.79 584.83 467.77
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00145 isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUMMU R4FIR9_9SAUR	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta	8 11 11 11 11 11 11 10 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S	597.4 593.81 475.79 584.83 467.77
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 84.02	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin BM-1 LP-Pse-3 LP-Pse-6	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11 10 9 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K	597.4 593.81 475.79 584.83 467.77 584.83 475.78
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00145 isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUMMU R4FIR9_9SAUR	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta	8 11 11 11 11 11 11 10 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S	597.4 593.81 475.79 584.83 467.77
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 84.02	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin BM-1 LP-Pse-3 LP-Pse-6	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11 10 9 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77
		R4G2S8_DENDV R4FIC4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 84.02	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11 11 10 9 9 9 9 9	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K R.TDFLPWR.K	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR R5tig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECGG_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00147 R4G2I2_9SAUR	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 84.02 84.02	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-3 LP-Pse-1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis	8 11 11 11 11 11 11 10 9 9 9 9 9 9 8	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLPWR.K K.YFNDFK.N R.TDFLLWR.K	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78
	CLect	R4G2S8_DENDV R4FIC4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEAU LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00146 isotig00147 R4G2I2_9SAUR isotig00148	84.07 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 84.02 84.02 84.02	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11 11 10 9 9 9 9 9 9 8 8 8 8 8	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
		R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2J2_9SAUR isotig00148 NXLL_LATLA	84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 83.02 82.9 82.9 82.9 82.9 82.9 82.9	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin LlLong (Fragment)	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 8	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLPWR.K K.YFNDFK.N R.TDFLLWR.K	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4FK55_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR isotig00148 NXLL_LATLA isotig01328	84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 84.02 85.02 82.9 82.9 82.9 82.9 82.9 82.9 82.85 82.85	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform 1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-2 Venom CLect-4 Long neurotoxin LlLong (Fragment) Long neurotoxin 2	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 8 7	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR Isotig00146 Isotig00147 R4G2I2_9SAUR R4FK55_9SAUR R4FK55_9SAUR ISOTIg00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE ISOTIg00148 ISOTIg00147 R4G2I2_9SAUR ISOTIg00148 NXLL_LATLA ISOTIg01328 NXL20_DRYCN	84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 84.02 84.02 84.02 84.03 84.04 84.05 84.05 84.05 84.06 86.06	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin BfL-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 LP-Pse-1 Venom CLect-2 Venom CLect-4 Long neurotoxin Llong (Fragment) Long neurotoxin 2 Long neurotoxin 20	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 7 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIC4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEAU LECG1_BUNFA LECG1_BUNFA LECG1_BUNFA LECG1_BUNFA LECG1_BUNFU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR isotig00148 NXLL_LATLA isotig01328 NXLL2_DRYCN NXL31_DRYCN	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 83.02 83.02 83.02 83.02 83.03 84.06 86.06 86 86 86 86 86 86 86 86 86 86 86 86 86	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 LP-Pse-1 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin Llong (Fragment) Long neurotoxin 2 Long neurotoxin 20 Long neurotoxin 20 Long neurotoxin 31	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Dysdalia coronoides Drysdalia coronoides	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 8 7	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2J2_9SAUR isotig00148 NXL1_LATLA isotig01328 NXL20_DRYCN NXL31_DRYCN R4FI75_9SAUR	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.02 83.02 83.02 82.9 82.9 82.9 82.9 85.688 56.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin LlLong (Fragment) Long neurotoxin 2 Long neurotoxin 31 3FTx-Aca-53	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Bungarus fasciatus Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Laticauda laticaudata Pseudonajo textilis Lorysdalia coronoides Drysdalia coronoides Acanthophis wellsi	8 11 11 11 11 11 10 9 9 9 9 9 9 8 8 8 8 8 7 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIC4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEAU LECG1_BUNFA LECG1_BUNFA LECG1_BUNFA LECG1_BUNFA LECG1_BUNFU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR isotig00148 NXLL_LATLA isotig01328 NXLL2_DRYCN NXL31_DRYCN	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 83.02 83.02 83.02 83.02 83.03 84.06 86.06 86 86 86 86 86 86 86 86 86 86 86 86 86	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin BML-1 LP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 LP-Pse-1 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin Llong (Fragment) Long neurotoxin 2 Long neurotoxin 20 Long neurotoxin 20 Long neurotoxin 31	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Dysdalia coronoides Drysdalia coronoides	8 11 11 11 11 11 10 9 9 9 9 9 9 8 8 8 8 8 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG1_BUNFA LECG_PSEPO LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR isotig00148 NXLL_LATLA isotig01328 NXL20_DRYCN NXL31_DRYCN R4FI75_9SAUR F8J2E3_DRYCN	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 82.9 82.9 82.9 82.9 82.9 82.9 82.85 56.88 56.88 56.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform 1	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Drysdalia coronoides Acanthophis wellsi Drysdalia coronoides	8 11 11 11 11 11 11 10 9 9 9 9 9 8 8 8 8 8 8 6 6 6 6 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIQ4_9SAUR Isotig00146 Isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4FK55_9SAUR R4FK55_9SAUR ISOTIg00148 LECG1_BUNFA LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE ISOTIg00146 ISOTIg00147 R4G2J2_9SAUR ISOTIg00147 R4G2J2_9SAUR STUG00147 R4G2J2_9SAUR ISOTIg001328 NXLL2_LATLA ISOTIg001328 NXL20_DRYCN NXL31_DRYCN R4BJ2E3_DRYCN F8J2F1_DRYCN F8J2F1_DRYCN	61.52 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.06 84.02 84.02 84.02 84.02 84.02 85.69 85.69 86.88 86.88 86.88 86.88 86.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 Venom Clect-2 Venom Clect-2 Venom Clect-3 LP-Pse-1 Venom Clect-4 Long neurotoxin Llong (Fragment) Long neurotoxin 2 Long neurotoxin 20 Long neurotoxin 31 3FTx-Aca-53 Putative long chain neurotoxin 291 Putative long chain neurotoxin 178R	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 8 6 6 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect	R4G2S8_DENDV R4FIC4_9SAUR isotig00146 isotig00147 R4G2J2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEAU LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2J2_9SAUR isotig00148 NXLL_LATLA isotig01328 NXLL2_DRYCN NXL31_DRYCN R4FI75_9SAUR F8J2E3_DRYCN F8J2E8_DRYCN F8J2E8_DRYCN	61.52 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 84.02 84.02 84.02 84.02 85.69 85.69 86.88 86.88 86.88 86.88 86.88 86.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin BfL-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin Llong (Fragment) Long neurotoxin 1 Long neurotoxin 2 Long neurotoxin 2 Long neurotoxin 31 3FTx-Kac-53 Putative long chain neurotoxin 178R Putative long chain neurotoxin 172	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis mustralis Bungarus multcinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides	8 11 11 11 11 11 10 9 9 9 9 9 9 8 8 8 8 7 6 6 6 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect 3FTx	R4G2S8_DENDV R4FIQ4_9SAUR R4FIQ4_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4FK55_9SAUR R4FK55_9SAUR R500148 LECG1_BUNFA LECG_PSEPO LECG_PSEPO LECG_PSEAU LECG1_BUNMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR R4G2I2_9SAUR NXL20_DRYCN NXL31_DRYCN NXL31_DRYCN NXL31_DRYCN R4FI75_9SAUR F8J2E3_DRYCN F8J2F1_DRYCN F8J2F1_DRYCN F8J2F1_DRYCN F8J2F3_DRYCN F8J2G_9SAUR R4G2P6_9SAUR NXS2_PSETE	61.52 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 84.02 82.9 82.9 82.9 82.9 82.85 56.88 56.88 56.88 56.88 56.88 56.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform variant 1 Venom C-type lectin galacte binding isoform variant 1 Venom Clect-2 Venom Clect-2 Venom Clect-3 LP-Pse-1 Venom Clect-4 Long neurotoxin Ilong (Fragment) Long neurotoxin 2 Long neurotoxin 2 Long neurotoxin 31 3FTx-Aca-53 Putative long chain neurotoxin 291 Putative long chain neurotoxin 178R Putative long chain neurotoxin 178R Putative long chain neurotoxin 472 3FTx-Pse-78 3FTx-Aca-18 Short neurotoxin 2	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis australis Bungarus multicinctus Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Drysdalia coronoides Pseudonaja modesta Acanthophis wellsi Pseudonaja textilis	8 11 11 11 11 11 10 9 9 9 9 9 9 9 8 8 8 8 7 6 6 6 6 6 6 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLPWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N K.TPYVK.S	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21
	CLect 3FTx	R4G2S8_DENDV R4FIQ4_9SAUR isotig00147 R4G2I2_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR R4G7K1_9SAUR isotig00148 LECG1_BUNFA LECG_PSEPO LECG_PSEPO LECG_PSEAU LECG1_BUMMU R4FIR9_9SAUR R4G314_9SAUR D2YVJ3_PSETE isotig00146 isotig00147 R4G2I2_9SAUR isotig00147 R4G2I2_9SAUR isotig00148 NXLL_LATLA isotig01328 NXLQ_DRYCN NXL31_DRYCN R4FIZ5_9SAUR F8J2E3_DRYCN F8J2E8_DRYCN R4G319_9SAUR R4G2P6_9SAUR	61.52 84.07 84.07 84.07 84.07 84.07 84.06 84.06 84.06 84.06 84.02 82.9 82.9 82.9 82.9 82.85 56.88 56.88 56.88 56.88 56.88	PLA2-Pse-8 Venom CLect-2 Venom CLect-3 LP-Pse-1 LP-Pse-1 LP-Pse-2 LP-Pse-5 Venom CLect-1 Venom CLect-4 C-type lectin Bfl-1 C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin galacte-binding isoform C-type lectin galacte binding isoform C-type lectin galacte binding isoform variant 1 IP-Pse-3 LP-Pse-6 Venom C-type lectin galacte binding isoform variant 1 Venom CLect-2 Venom CLect-2 Venom CLect-3 LP-Pse-1 Venom CLect-4 Long neurotoxin Illong (Fragment) Long neurotoxin 2 Long neurotoxin 20 Long neurotoxin 31 3FTx-As-53 Putative long chain neurotoxin 291 Putative long chain neurotoxin 1788 Putative long chain neurotoxin 472 3FTx-Pse-78 3FTx-Pse-78 3FTx-Pse-78	Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Pseudonaja textilis Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Pseudonaja textilis Bungarus fasciatus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudechis porphyriacus Pseudonaja modesta Pseudonaja modesta Pseudonaja modesta Pseudonaja textilis Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Drysdalia coronoides Pseudonaja modesta Acanthophis wellsi Pseudonaja modesta Acanthophis wellsi	8 11 11 11 11 11 11 10 9 9 9 9 9 8 8 8 8 8 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6	R.SRTDFLLWR.K K.YMWEWTDR.S R.TDFLLWR.K K.YIWEWTDR.S R.TDFLPWR.K K.YIWEWTDR.S R.TDFLLWR.K R.TDFLLWR.K R.TDFLLWR.K K.VFNDPK.N R.TDFLLWR.K K.VFNDPK.N K.TPYVK.S	597.4 593.81 475.79 584.83 467.77 584.83 475.78 467.77 360.21 475.78 360.21

		isotig00074	61.61	SNTXZ CEPTED M	A Pseudonaja textilis P I	18		
_		NXS3_PSETE	61.61	Short neurotoxin 3	Pseudonaja textilis	18	R.YLVPATHGNAIPAR.G	493.94
	BPTI	IVBI3_PSETT	60.46	Protease inhibitor textilinin-3	Pseudonaja t. textilis	7	R.FYYNPR.Q	430.24
		R4FK61_9SAUR	60.46	KP-Pse-5	Pseudonaja modesta	7		
		R4G317_9SAUR	60.46	KP-Pse-7	Pseudonaja modesta	7		
	PLA2	PA2BB_PSETE	98.42	Basic phospholipase A2 homolog textilotoxin B chain	Pseudonaja textilis	27	R.YNSANYNIDIK.T	657.86
							DLVEFGFM(+15.99)IR.C	621.9
							R.GSGTPVDDVDR.C	559.2
							K.RGSGTPVDDVDR.C	637.38
		PA2BA_PSETE isotig00814	59.78 59.78	Basic phospholipase A2 textilotoxin A chain PLA2 textilotoxin A	Pseudonaja textilis Pseudonaja textilis	6 6	R.GTPVDDVDR.C	487.25
	PLA2	PA2BB_PSETE	98.35	Basic phospholipase A2 homolog textilotoxin B chain	Pseudonaja textilis	27	R.YNSANYNIDIK.T	657.8
		_			-		K.RGSGTPVDDVDR.C	637.3
							DLVEFGFM(+15.99)IR.C	621.9
							DLVEFGFMIR.C	613.8
							R.GSGTPVDDVDR.C	559.2
		PA2BA_PSETE	60.96	Basic phospholipase A2 textilotoxin A chain	Pseudonaja textilis	6	R.GTPVDDVDR.C	487.2
		isotig00814	60.96	PLA2 textilotoxin A	Pseudonaja textilis	6		
(CRISP	isotig00418	76.03	Cysteine-rich venom protein pseudechetoxin-like	Pseudonaja textilis	3	R.NMLQMK.W	382.7
		R4G2J3_9SAUR	76.03	CRiSP-Pse-4	Pseudonaja modesta	3		
		R4FIS5_9SAUR	76.03	CRiSP-Pse-17	Pseudonaja modesta	3		
		CRVP_OXYMI	76.03	Cysteine-rich venom protein pseudechetoxin-like	Oxyuranus microlepidotus	3		
		CRVP_PSETE	76.03	Cysteine-rich venom protein pseudechetoxin-like	Pseudonaja textilis	3		
		CRVP_OXYSC	76.03	Cysteine-rich venom protein pseudechetoxin-like	Oxyuranus s. scutellatus	3		
		R4G7K2_9SAUR	76.03	CRiSP-Pse-11	Pseudonaja modesta	3	7	
	PLA2	PA2BA_PSETE	60.69	Basic phospholipase A2 textilotoxin A chain	Pseudonaja textilis	6	R.GTPVDDVDR.C	487.2
		isotig00814	60.69	PLA2 textilotoxin A	Pseudonaja textilis	6		
	PLA2	isotig00264	84.18	Acidic PLA2-A4	Pseudonaja textilis	16	R.FSGPYWNPYSYK.C	754.8
		isotig00263	84.18	Acidic PLA2-A3	Pseudonaja textilis	16	K.GGSGTPVDELDR.C	601.8
		PA2A2_PSETE	84.18	Acidic phospholipase A2 2	Pseudonaja textilis	16		
(CLect	isotig00146	83.49	Venom CLect-2	Pseudonaja textilis	9	K.YM(+15.99)WEWTDR.S	601.8
		isotig00147	83.49	Venom CLect-3	Pseudonaja textilis	9	R.TDFLLWR.K	475.8
		R4G2J2_9SAUR	83.49	LP-Pse-1	Pseudonaja modesta	9		
		R4G7K1_9SAUR	83.49	LP-Pse-2	Pseudonaja modesta	9		
		R4FK55_9SAUR	83.49	LP-Pse-5	Pseudonaja modesta	9		
		isotig00145	83.49	Venom CLect-1	Pseudonaja textilis	9		
		isotig00148	83.48	Venom CLect-4	Pseudonaja textilis	9		
-	CLect	isotig00146	84.02	Venom CLect-2	Pseudonaja textilis	9	K.YM(+15.99)WEWTDR.S	601.8
		isotig00147	84.02	Venom CLect-3	Pseudonaja textilis	9	K.YMWEWTDR.S	593.8
		R4G2J2_9SAUR	84.02	LP-Pse-1	Pseudonaja modesta	9	R.TDFLLWR.K	475.7
		R4G7K1_9SAUR	84.02	LP-Pse-2	Pseudonaja modesta	9		
		R4FK55_9SAUR	84.02	LP-Pse-5	Pseudonaja modesta	9		
		isotig00145	84.02	Venom CLect-1	Pseudonaja textilis	9		
		isotig00148	84.01	Venom CLect-4	Pseudonaja textilis	9		
	VF5a	isotig00199	61.41	VF5a-3	Pseudonaja textilis	1	R.DALSGLLGPTLR.G	606.9
		FA5V_PSETE	61.41	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	1		
		isotig00200	61.41	VF5a-2	Pseudonaja textilis	1		
١	VF10a	FAXC_PSETE	83.3	Venom prothrombin activator pseutarin-C catalytic subunit	Pseudonaja textilis	4	K.VPYVDR.H	374.7
		isotig00188	83.3	VF10a isoform 1	Pseudonaja textilis	4	R.AETGPLLSVDK.V	565.3
		isotig00189	83.3	VF10a isoform 1	Pseudonaja textilis	4		
-	CLect	isotig00146	82.17	Venom CLect-2	Pseudonaja textilis	9	K.YM(+15.99)WEWTDR.S	601.8
		isotig00147	82.17	Venom CLect-3	Pseudonaja textilis	9	R.TDFLLWR.K	475.7
		R4G2J2_9SAUR	82.17	LP-Pse-1	Pseudonaja modesta	9		
		R4G7K1_9SAUR	82.17	LP-Pse-2	Pseudonaja modesta	9		
		R4FK55_9SAUR	82.17	LP-Pse-5	Pseudonaja modesta	9		
		isotig00145	82.17	Venom CLect-1	Pseudonaja textilis	9		
		isotig00143	82.16	Venom CLect-4	Pseudonaja textilis	9		
١	VF10a	FAXC_PSETE	98.17	Venom prothrombin activator pseutarin-C catalytic subunit	Pseudonaja textilis	7	K.QDFGIVSGFGGIFER.G	814.9
,	100	isotig00188	98.17	VF10a isoform 1	Pseudonaja textilis	7	R.AETGPLLSVDK.V	565.3
		isotig00188	98.17	VF10a isoform 1	Pseudonaja textilis	7	K.VPYVDR.H	374.7
	VF10a		98.17 83.45		·	4	R.AETGPLLSVDK.V	565.3
`	v i ±Ud	FAXC_PSETE		Venom prothrombin activator pseutarin-C catalytic subunit	Pseudonaja textilis			
		isotig00188	83.45 83.45	VF10a isoform 1	Pseudonaja textilis	4	K.VPYVDR.H	374.6
	DPP	isotig00189		VF10a isoform 1	Pseudonaja textilis	11	D TEM ELMANACO	610.3
	איזט	V8NS94_OPHHA	98.86	Dipeptidase	Ophiophagus hannah	11	R.TEVLELMAASR.L	
				, 7			R.TEVLELM(+15.99)AASR.L	618.4
							K.LSNTNTNIEK.L	567.3
							R.M(+15.99)FYDLGVR.Y	508.8
							R.MFYDLGVR.Y	500.8
		HUCEIT ANIOC:	04.34	Dinantidass (F	Analis sa!	-	K.LSTIDLKK.L	459.3
		H9GFI1_ANOCA	84.31	Dipeptidase (Fragment)	Anolis carolinensis	5	R.LTLEQIDVVK.R	579.4
							R.M(+15.99)FYDLGVR.Y	508.8
							R.MFYDLGVR.Y	500.8
							R.LTLEQIDVVKR.M	438.6
	VF5a	isotig00199	99.16	VF5a-3	Pseudonaja textilis	10	R.GEVGDSLIIYFK.N	670.9
		FA5V_PSETE	99.16	Venom prothrombin activator pseutarin-C non-catalytic subunit	Pseudonaja textilis	6	R.DALSGLLGPTLR.G	606.9
		isotig00200	99.16	VF5a-2	Pseudonaja textilis	6	K.WSEGSSYSDGTSDVER.L	881.3
							K.NFATQPVSIHPQSAVYNK.W	667.7
							K.WLISSLVAK.H	508.8
							R.EYELDFK.Q	472.28
							K.HLQAGM(+15.99)YGYLNIK.D	508.6