

Supplementary Material to “Proteomics, toxicity and antivenom neutralization of Sri Lankan and Indian Russell’s viper (*Daboia russelii*) venoms”

Additional file 2. Protein assignment of Indian *Daboia russelii* (DrI) venom by fractions of reversed-phase HPLC. Data were generated from ESI-LCMS/MC analysis of in-solution digested peptides.

Fraction	Protein designated ID	Protein name*	Database accession/ species name	Protein score	Distinct peptides matched (#)	Relative abundance (%)
1	<i>Drl1</i>	Kunitz-type protease inhibitor	H9BFA3 (<i>D. russelii</i>)	36.21	2	2.69%
	<i>Drl2</i>	Disintegrin jerdostatin	Q7ZZM2 (<i>P. jerdonii</i>)	33.13	2	0.32%
2	<i>Drl3</i>	Kunitz-type serine protease inhibitor B5	A8Y7P5 (<i>D. siamensis</i>)	74.66	4	0.82%
	<i>Drl1</i>	Kunitz-type protease inhibitor	H9BFA3 (<i>D. russelii</i>)	63.84	3	1.82%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	44.82	3	0.12%
3	<i>Drl5</i>	DSAIP	A0A2H4Z2X4 (<i>D. siamensis</i>)	105.35	6	0.05%
	<i>Drl6</i>	Venom nerve growth factor	P30894 (<i>D. russelii</i>)	65.08	4	0.05%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	58.98	3	0.17%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	53.59	3	0.17%
	<i>Drl1</i>	Kunitz-type protease inhibitor	H9BFA3 (<i>D. russelii</i>)	51.22	3	0.03%
4	<i>Drl5</i>	DSAIP	A0A2H4Z2X4 (<i>D. siamensis</i>)	110.67	6	0.14%
	<i>Drl6</i>	Venom nerve growth factor	P30894 (<i>D. russelii</i>)	94.43	6	0.61%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	55.94	3	0.16%
	<i>Drl8</i>	Kunitz-type serine protease inhibitor C4	A8Y7N7 (<i>D. siamensis</i>)	37.41	2	0.06%
	<i>Drl9</i>	L-amino-acid oxidase	G8XQX1 (<i>D. russelii</i>)	34.06	2	0.04%
5	<i>Drl10</i>	Snake venom vascular endothelial growth factor toxin VR-1	P67861 (<i>D. russelii</i>)	62.27	4	1.21%
	<i>Drl11</i>	Snake venom vascular endothelial growth factor toxin OS	Unigene30051_DRSL (<i>D. russelii</i>)	60.28	4	0.31%
	<i>Drl6</i>	Venom nerve growth factor	P30894 (<i>D. russelii</i>)	59.86	3	1.02%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	52.57	3	0.06%

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6	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	270.65	13	21.35%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	197.49	11	1.76%
	<i>Drl12</i>	Beta-fibrinogenase-like	E5L0E4 (<i>D. siamensis</i>)	76.87	5	5.49%
	<i>Drl13</i>	Cysteine-rich secretory protein Dr-CRPK	CL3658.Cont ig2_DRSL (<i>D. russelii</i>)	62.11	4	1.91%
	<i>Drl14</i>	Venom serine proteinase-like protein 2	Q9PT40 (<i>M. lebetina</i>)	49.74	2	2.69%
	<i>Drl15</i>	Acidic phospholipase A2 RV-7	P31100 (<i>D. siamensis</i>)	42.59	2	3.01%
	<i>Drl16</i>	Basic phospholipase A2 RVV-VD	P81458 (<i>D. russelii</i>)	30.85	2	0.99%
7	<i>Drl17</i>	Cysteine-rich secretory protein Dr-CRPK	F2Q6F2 (<i>D. russelii</i>)	195.2	11	0.89%
	<i>Drl13</i>	Cysteine-rich secretory protein Dr-CRPK	CL3658.Cont ig2_DRSL (<i>D. russelii</i>)	187.5	11	0.85%
	<i>Drl18</i>	Cysteine-rich secretory protein Da-CRPa	F2Q6G0 (<i>D. acutus</i>)	133.34	6	0.98%
	<i>Drl19</i>	Cysteine-rich secretory protein Pg-CRP	F2Q6F6 (<i>C. godmani</i>)	36.36	2	0.23%
	<i>Drl14</i>	Venom serine proteinase-like protein 2	Q9PT40 (<i>M. lebetina</i>)	76.03	5	0.28%
	<i>Drl12</i>	Beta-fibrinogenase-like	E5L0E4 (<i>D. siamensis</i>)	64.33	4	0.47%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	153.85	8	0.88%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	133.58	7	0.63%
	<i>Drl20</i>	Basic phospholipase A2 DsM-S1	A8CG84 (<i>D. siamensis</i>)	132.6	7	0.94%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	70.77	4	1.62%
8	<i>Drl21</i>	Factor V activator RVV-V gamma	P18965 (<i>D. siamensis</i>)	231.54	15	0.23%
	<i>Drl12</i>	Beta-fibrinogenase-like	E5L0E4 (<i>D. siamensis</i>)	70.84	5	0.28%
	<i>Drl22</i>	Serine beta-fibrinogenase-like protein precursor	CL2958.Cont ig2_DRSL (<i>D. russelii</i>)	64.65	4	0.03%
	<i>Drl23</i>	Thrombin-like enzyme	Q98TT5 (<i>D. acutus</i>)	27.01	2	0.01%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	216.86	12	0.40%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	188.63	10	0.24%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	104.59	5	0.12%
	<i>Drl17</i>	Cysteine-rich secretory protein Dr-CRPK	F2Q6F2 (<i>D. russelii</i>)	126.16	8	0.03%
	<i>Drl13</i>	Cysteine-rich secretory protein Dr-CRPK	CL3658.Cont ig2_DRSL (<i>D. russelii</i>)	107.49	7	0.03%
	<i>Drl24</i>	Cysteine-rich secretory protein Dr-CRPB	F2Q6F3 (<i>D. russelii</i>)	34.11	2	0.04%

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	<i>Drl19</i>	Cysteine-rich secretory protein Pg-CRP	F2Q6F6 (<i>C. godmani</i>)	26.88	2	0.01%
	<i>Drl15</i>	Acidic phospholipase A2 RV-7	B3RF16 (<i>D. siamensis</i>)	104.66	5	0.13%
	<i>Drl14</i>	Venom serine proteinase-like protein 2	Q9PT40 (<i>M. lebetina</i>)	90.68	5	0.02%
	<i>Drl25</i>	Serine protease VLSP-3	E0Y420 (<i>M. lebetina</i>)	59.9	4	0.03%
	<i>Drl26</i>	Beta-fibrinogenase	E0Y419 (<i>M. lebetina</i>)	48.23	3	0.03%
9	<i>Drl27</i>	Serine protease VLSP-1	CL2958.Contig2_DRSL (<i>D. russelii</i>)	98.7	4	1.20%
	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	157.24	8	0.24%
	<i>Drl7</i>	U1-viperitoxin-Dr1a	P86368 (<i>D. russelii</i>)	106.22	6	0.10%
	<i>Drl28</i>	Alpha-fibrinogenase-like	E5L0E3 (<i>D. siamensis</i>)	140.35	9	0.49%
	<i>Drl29</i>	Serine alpha-fibrinogenase-like protein precursor Daboia-russelii	E5L0E3 (<i>D. siamensis</i>)	94.96	6	0.36%
	<i>Drl12</i>	Beta-fibrinogenase-like	E5L0E4 (<i>D. siamensis</i>)	30.56	2	0.14%
	<i>Drl30</i>	Serine protease	CL2791.Contig2_EC (<i>E. carinatus</i>)	27.92	2	0.09%
	<i>Drl10</i>	Snake venom vascular endothelial growth factor toxin VR-1	P67861 (<i>D. russelii</i>)	29.83	2	0.02%
	<i>Drl16</i>	Basic phospholipase A2 RVV-VD	P81458 (<i>D. russelii</i>)	28.42	2	0.04%
10	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	71.35	4	1.35%
11	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	38.99	2	29.99%
12	<i>Drl4</i>	Basic phospholipase A2 VRV-PL-VIIIa	P59071 (<i>D. russelii</i>)	61.72	4	3.03%
	<i>Drl31</i>	Moderate to high molecular weight proteins	–	–	–	6.47%

C. godmani: *Cerrophidion godmani*; *D. russelii*: *Daboia russelii*; *D. siamensis*: *Daboia siamensis*; *D. acutus*: *Deinagkistrodon acutus*; *E. carinatus*: *Echis carinatus*; *M. lebetina*: *Macrovipera lebetina*; *P. jerdonii*: *Protobothrops jerdonii*.

*Protein names taken from protein sequence database based on homology match in BLAST and UniProt search.

Peptide sequences and mass/charge ratios of all corresponding proteins are shown in Additional file 3.

#Number of distinct peptides matched to identified proteins.