Table 1. Class I. Disintegrins and related antagonists of fibrinogen receptor glycoprotein IIb/IIIa complex (GPIIb/IIIa)

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Accutin	*Agkistrodon acutus*	5241 Da, 47aa	66-267 nM	99
Agkistrostatin	*Agkistrodon piscivorus*			7
Albolabrin	*Trimeresurus albolabris*	7574 Da, 73 aa, single chain, pI 4.27	220 nM	100
Applaggin	*Agkistrodon piscivorus piscivorus*	17 700 Da, 71 aa, a disulfide linked homodimer	12-128 nM	101, 102
Arietin /Bitistatin	*Bitis arietans*	8500 Da	130-270 nM	103, 104
Barbourin	*Sistrurus m. barbouri*	73 aa	309 nM	20
Batroxostatin	*Bothrops atrox*	71 aa	133 nM	105
Bitan α	*Bitis arietans*	8987 Da, 83aa	108 nM	106
Bitistatin	*Bitis arietans*	9022 Da, 83aa, single chain	237 nM	107
Carinatin	*Echis carinatus*	6 800 Da, acidic glycoprotein, 22.1 % neutral sugars, pI 4.8	1.47 nM	2, 3
Cerastatin	*Cerastes cerastes*	32 000 Da, pI 6.2, glycoprotein, oligometric structure	2.3 nM	108
Contortrostatin	*Agkistrodon contortrix contortrix*	15 000 Da, homodimer, 13 500 Da	49 – 1 150 nM for platelet of different species	14
Crotavirin	*Crotalus viridis*	9200 Da, single chain	110 nM	109
Echistatin α1	*Echis carinatus*	5400 Da, 49aa, pI 8.3	30 nM	106
Echistatin α2	*Echis carinatus*	5243 Da, 47aa	555 nM	4, 106
Elegantin	*Trimeserusus elegans*	7806 Da, 73 aa, pI 4.69, single chain	136 nM	100
Eristocophin	*Eristocophis macmahoni*			20
Eristostatin	*Eristocophis macmahoni*	5 400 Da, 49 aa	59 nM	110, 111
Flavoridin	*Trimeresurus flavoviridis*	70 aa	50 nM	7
Flavostatin	*Trimeresurus flavoviridis*	7 304 Da, 68 aa	59-111 nM	112, 113
Gabonin	*Bitis gabonica*	21 000 Da, 84 aa, disulfide-linked homodimer, pI 9.2	340– 1600 nM	114
Halysin	*Agkistrodon halys*	7500 Da, 71aa single chain	160-360 nM	115
Kistrin	*Calloselasma (Agkistrodon) rhodostoma*	7318 Da, 68aa	105-128 nM	106
Multisquamatin	*Echis multisquamatus*	5700 Da	97-333 nM for platelet of different species	116
Rhodostomin	*Calloselasma (Agkistrodon) rhodostoma*			7, 12
Salmosin 1 Salmosin 2 Salmosin 3	*Agkistrodon halys brevicandus*	7474 Da, 73 aa, single chain 73 aa (by cDNA) 80 aa (by cDNA)	131 nM - -	117, 118
Tergeminin	*Sistrurus c. tergeminus*			20
Triflavin	*Trimeresurus flavoviridis*			119, 120
Trigramin Trigramin β,	*Trimeresurus gramineus*	7 500 Da, 72 aa, pI 5.61 7 551 Da, 72 aa	 300 nM	5, 106, 121

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Trimucrin	*Trimeresurus mucrosquamatus*	71 aa (by cDNA)	¾	122
Ussuristatin 1 Ussuristatin 2	*Agkistrodon ussuriensis*	7 458 Da, 71 aa, single chain 7 385 Da, 71 aa, disulfide-linked homodimer	17-33 nM 140-290 nM	21
Venom inhibitor	*Calloselasma (Agkistrodon) rhodostoma*	31 000 Da, 266 aa dimer, glycoprotein, 8.3 % neutral sugars	160-320 nM	123

Table 2. Class I. Antagonists of fibrinogen receptor glycoprotein IIb/IIIa complex (GPIIb/IIIa) that are unrelated to disintegrins

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Mambin	*Dendroaspis jamesonii*	6 744 da, 59 aa	172 nM	47
Decorsin	*Macrobdella decora*	4379 Da, 39 aa, pI 4.45	500 nM	49
Ornatins A2	*Placobdella ornata*	4449.6 Da, 41 aa, pI 9.8	133 nM	50
A3		pI 9.8	¾	
B		5868.2 Da, 52 aa, pI 8.75	¾	
C		5839.5 Da, 52 aa, pI 9.45	279 nM	
D		5721.6 Da, 44 aa	¾	
E		5722.5 Da, 50 aa, pI 8.75	438 nM	
Variabilin	*Dermacentor variabilis*	4 969 Da, 47 aa	157 nM	51
Salivary gland extract of deerfly	*Chrysops*	¾	¾	124
Disagregin	*Ornithodoros moubata*	6 987 Da, 60 aa, pI 7.35	104 nM	52

Table 3. Class II. Antagonists of von Willebrand factor receptor glycoprotein Ib (GPIb)

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Agkicetin	*Agkistrodon acutus*	26 000 Da, disulfide-linked heterodimer	12.5 nM	125
CHH-A CHH-B	*Crotalus horridus horridus*	23 000 Da, disulfide-linked heterodimer 25 000 Da, disulfide-linked heterodimer (α= 15 000, β=12 000 Da)	¾	126
Echicetin	*Echis carinatus*	26 000 Da, disulfide-linked heterodimer, 16 000 , 14 000 Da, C-type lectin	5.77-42.3 nM	56, 57
Flavocetin-A Flavocetin-B	*Trimeresurus flavoviridis*	149 000 Da, subunits α=17 000 Da, β=14 000 Da 139 000 Da, subunits α=17 000,β=15 000 Da, γ=14 000 Da	1.0-3.3 nM 1.80-4.00 nM	55
Jararaca GPIb-BP	*Bothrops jararaca*	30 000 Da, disulfide-linked heterodimer, α= 142 aa (17 457 Da), β=123 aa (15,035 Da)	28-42 nM	127, 128
Tokaracetin	*Trimeresurus tokarensis*	28 900 Da, disulfide linked heterodimer (16 100, 15 400 Da)	8.65-20 nM	129

Table 4. Class III. Antagonists of collagen-platelet interaction

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Calin	*Hirudo medicinalis*	65 000 Da	¾	66
Leech antiplatelet protein (LAPP)	*Haementeria officinalis*	16 000 Da, 126 aa	60 nM	67, 68
Moubatin	*Ornithodoros moubata*	17 000 Da	50 nM	69, 70
Tick adhesion inhibitor (TAI)	*Ornithodoros moubata*	15 000 Da	¾	71
Pallidipin	*Triatoma pallidipennis*	19 000 Da	50-200 nM	72
Catrocollastatin-C	*Crotalus atrox*	23 600 Da	66 nM	59, 62
Crovidisin	*Crotalus viridis*	53 000 Da, single chain	0.17 μM	65
Jararhagin-C	*Bothrops jararaca*	28 000 Da, 212 aa	N. D.	61

Table 5. Class IV. Antagonists of thrombin-thrombin receptor interaction

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
Bothroalternin	*Bothrops alternatus*	27 000 Da, disulfide-linked homodimers (14 000 Da), C-type lectin	7 nM	76
Bothrojaracin	*Bothrops jararaca*	27 000 Da, pI 4.2, disulfide-linked heterodimer (15 000, 13 000 Da)	2.2 nM	75
Triabin	*Triatoma pallidipennis*	17 000 Da, 142 aa	2.6 nM	77-79

Table 6. Class V. Other nonenzymatic inhibitors which inhibit platelet aggregation through unknown mechanism

Name	**Species**	**Physical properties**	**IC_{50}**	**References**
Lebetin 1α Lebetin 1β Lebetin 2α Lebetin 2β	*Vipera lebetina*	1 306 Da, 13 aa 1 249 Da, 12 aa 3 944 Da, 38 aa 3 886 Da, 37 aa	27-125 nM 5-48 nM	80, 81

Table 7. Nucleotidases that inhibit platelet aggregation

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
5'-nucleotidase	*Trimeresurus gramineus*	74 000 Da, single glycoprotein chain, 589 aa, 22% neutral sugars, Hydrolysis: AMP: 15.8 μmol Pi/min per mg ADP: 3.2 μmol Pi/min per mg	0.68 μM	82
ADPase	*Agkistrodon acutus*	94 000 Da, 852 aa	¾	83
ADPase/5'-nucleotidase	*Vipera aspis*	Hydrolysis: AMP: 1.03 μmol Pi/min per mg ADP: 2.03 μmol Pi/min per mg	¾	84

Table 8. Phospholipase A_2 enzymes that inhibit platelet aggregation

Species	Name	Physical Properties	IC_{50}	References
Acanthophis antarcticus	Acanthin I Acanthin II	12 845 Da, 119 aa, pI 10.2 12 896 Da, 118 aa, pI 10.4	7 nM 4 nM	130
Acanthophis praelongus	Praelongin 2bIII Praelongin 2cII Praelongin 2cIV	12 783Da, pI 10.3 12 971 Da, pI 9.4 12 972 Da, pI 9.6	650 nM 180 µM 55 µM	131
Agkistrodon acutus	Phospholipase A_2	16 4000 Da, pI 4.9	¾	91
Agkistrodon halys	Phospholipase A_2	14 000 Da, 130 aa, single chain, <1% carbohydrate	0.78 µM	92, 132
Agkistrodon halys pallas	Phospholipase A_2	124 aa, pI 4.5 single chain	¾	133
Austrelaps superba	Phospholipase A_2	15 000 Da	0.33 µM	87, 134
Austrelaps superbus	Superbin I Superbin II	13 252 Da 13 235, 13212.9 Da	¾	135
Echis carinatus	EC-I-PLA_2	16 000 Da	~ 2 µM	136
Lachesis muta	LM-PLA_2	17 000 Da, pI 4.7, single chain	25-125 nM	137
Naja naja atra	phospholipase A_2	¾	¾	86
Naja nigricollis	CM-I CM-II CM-IV	15 000 Da 15 000 Da 15 000 Da	¾	88
Ophiophagus hannah	OHV A-PLA_2	13 719 Da, 124 aa, single chain	4-1530 nM	89, 138
Pseudechis papuanus	PPV	15 000 Da	¾	90
Trimeresurus graminues	Platelet aggregation inhibitor	12 400 Da, 109aa, pI 3.6, single chain	0.2-0.4 µM	139, 140
Vipera russelli	VRV-PL-IIIb	14-15 000 Da, pI 7.3-7.7	¾	141
Vipera russelli formosensis	Phospholipase A_2	¾	¾	142
Vipera russelli siamensis	Venom inhibitor	13 800, 123 aa, pI 10.4	26.8-82.6 µM	143, 144
Apis mellifera	Phospholipase A_2	¾	¾	145
Heloderma horridum	HHV-PLA	19 000 Da, 163 aa, single chain	¾	146

Table 9. Metalloproteinases and their related domains that inhibit platelet aggregation

Name	**Species**	**Physical Properties**	**IC_{50}**	**References**
α-Fibrogenase	*Calloselasma rhodostoma*	25 400 Da, 226 aa, single chain, pI >10, <1% carbohydrate	¾	147, 148
α-Fibrogenase	*Trimeresurus mucrosquamatus*	22 400 Da, 203 aa, pI 8.1, 2% carbohydrate	¾	95, 149, 150
Fibrogenase	*Vipera lebetina*	26 000 Da, pI 5.9, glycoprotein, 5% carbohydrate	¾	151, 152
Jararhagin	*Bothrops jararaca*	52 000 Da	40 nM	63, 64, 153
Kistomin	*Calloselasma rhodostoma*	21 800 Da, 202 aa, single chain	0.37 μM	97, 154
Protease L4	*Agkistrodon halys brevicaudus*	22 000 Da, 173 aa	¾	155
Proteinase F1	*Naja nigricollis*	58 000 Da, pI >10, single chain	2μM	96, 156
Atrolysin A and Atrolysin A/DC	*Crotalus atrox*	24 479 Da, probably glycosylated	320-470 nM	60
Atrolysin E/D	*Crotalus atrox*	7 400 Da, 68 aa	4-8 nM	98
Catrocollastatin	*Crotalus atrox*			157