

Snake C-Type Lectins Potentially Contribute to the Prey Immobilization in *Protobothrops mucrosquamatus* and *Trimeresurus stejnegeri* Venoms

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α Subunits

	1	10	20	30	40	50	60	70	80						
Mucetin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFPGWSAYDRY	CYQAFSEPKNWD	DAESFC	EEGV	RTS	HLVSI	SSG	GD	FVAQ	QLV	
Stejnulxin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFSGWSAYDWY	CYKPFNEPQ	TWDDAER	FCTEQ	AKGG	HLVSI	SSG	AD	FVG	QLV	
Echicetin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFSGWSAYDWY	CYKPFNEPQ	TWDDAER	FCTEQ	AKGG	HLVSI	SSG	AD	FVG	QLV	
Convulxin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFSDWYSDYD	QHCYRIFNEP	MNWD	DAER	FCTEQ	AKGA	HLVSI	SSG	AD	FVAW	
Agglucetin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFPGWSAYDQY	CYQVIFNEP	KNWD	DAER	FCTEQ	ADGG	HLVSI	SSG	AD	FVAQ	
Jerdonuxin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFPGWSAYDRY	CYQAFSEPKNWD	DAESFC	EEGV	RTS	HLVSI	SSG	GD	FVAQ	QLV	
Mamushigin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFSDWSSYEGH	CYRVFQKEM	TWDAER	FCTEQ	QRKES	HLVSI	SSG	AD	FV	VSMT	
Rhodocytin	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFSGWSAYEGH	CYKPFNEP	KNWD	DAER	FCTEQ	AKLP	PHS	HLVSI	SSG	AD	FVKLT
Alboaggregin-B	MGRF	FFVSFGLLVVFL	SLSGTGAD	FD	CFPGWSAYDRY	CYQAFSEPKNWD	DAESFC	MEG	VKS	HLVSI	SSG	AD	FVAQ	QLV	

	90	100	110	120	130	140	150													
Mucetin	AEK	IKTSFQYVW	TGLR	IQNKEQ	CRSE	PSDAS	SVSYEN	LI	FKQSS	SKK	CYAT	KKGT	ELRT	WF	NVY	CGREN	PFVCKY	TF	EC	
Stejnulxin	SEN	IQRPEIYVW	TGLR	DRRKEQ	QCS	SEWSD	GTSTI	I	YV	N	KN	G	ES	Q	CG	L	S	K	W	T
Echicetin	SEN	IQRPEIYVW	TGLR	DRRKEQ	QCS	SEWSD	GTSTI	I	YV	N	KN	G	ES	Q	CG	L	S	K	W	T
Convulxin	TQN	IESFSHVW	TGLR	VONKEQ	CS	T	K	W	S	D	S	S	V	Y	D	L	L	D	L	Y
Agglucetin	SON	IESVEDHVW	TGLR	VONKEQ	CS	T	K	W	S	D	S	S	V	Y	D	L	L	D	L	Y
Jerdonuxin	SEK	IKTSFQYVW	TGLR	IQNKEQ	CRSE	PSDAS	SVSYEN	LI	FKQSS	SKK	CYAT	KKGT	ELRT	WF	NVY	CGREN	PFVCKY	TF	EC	
Mamushigin	WF	ILKYDFVWI	TGLR	IQNKEQ	CRSE	PSDAS	SVSYEN	LI	FKQSS	SKK	CYAT	KKGT	ELRT	WF	NVY	CGREN	PFVCKY	TF	EC	
Rhodocytin	RP	RLKANLVW	TGLR	IQNKEQ	CRSE	PSDAS	SVSYEN	LI	FKQSS	SKK	CYAT	KKGT	ELRT	WF	NVY	CGREN	PFVCKY	TF	EC	
Alboaggregin-B	NEN	IKTSFRYVW	TGLR	IQNKEQ	CRSE	PSDAS	SVSYEN	LI	FKQSS	SKK	CYAT	KKGT	ELRT	WF	NVY	CGREN	PFVCKY	TF	EC	

β Subunits

	1	10	20	30	40	50	60	70											
Mucetin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Stejnulxin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Echicetin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Convulxin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Agglucetin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Jerdonuxin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Mamushigin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Rhodocytin	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV
Alboaggregin-B	MGRF	IFVSFGLLVVFL	SLSGTEAGFC	CP	LGWSSYDEH	CYQV	FQQKMN	WEDA	KFC	TQ	OH	TGSH	LV	SV	HS	SE	EV	DF	VV

	80	90	100	110	120	130	140													
Mucetin	KTL	PI	LK	AS	FW	VW	IGLS	NV	W	N	A	C	R	L	Q	W	S	D	G	T
Stejnulxin	M	T	Y	P	I	L	K	L	D	F	V	W	I	G	L	S	N	V	W	N
Echicetin	L	V	S	E	N	I	Q	R	P	E	I	Y	V	W	I	G	L	S	N	V
Convulxin	M	T	H	Q	S	L	K	S	T	F	F	W	I	G	A	N	N	I	W	N
Agglucetin	L	A	Y	P	I	L	K	D	L	S	L	I	W	M	G	L	S	N	V	W
Jerdonuxin	K	T	F	P	I	L	K	H	D	F	V	W	I	G	L	S	N	V	W	N
Mamushigin	M	T	W	P	I	L	K	Y	D	F	V	W	I	G	L	S	N	V	W	N
Rhodocytin	L	T	R	P	L	K	A	N	L	V	W	M	G	L	S	N	I	W	H	G
Alboaggregin-B	K	T	L	P	I	L	K	A	D	F	V	W	I	G	L	S	N	V	W	N

Figure 1. The amino acid sequences of some snake venom C-type lectin-like proteins.

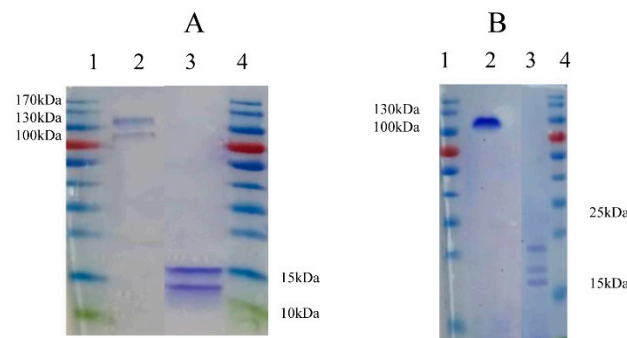


Figure 2. Purity of purified mucetin and stejnulxin as determined by SDS-PAGE and Coomassie blue staining. A. The figure shows the SDS-PAGE pattern of purified mucetin: Lanes 1 is from a 10% gel PAGE under non-reducing conditions; lane 4 is from a 12% gel PAGE under reducing conditions. Lanes 1 and 4 are markers. Lanes 2 and 3, purified stejnulxin. B. The figure shows the SDS-PAGE pattern of purified stejnulxin: Lanes 1 and 2 are from a 10% gel PAGE under non-reducing conditions;

lane 3 and 4 are from a 12% gel PAGE under reducing conditions. Lanes 1 and 4 are markers. Lanes 2 and 3, purified stejnulxin.