

Anti-HIV Cyclotides from the Chinese Medicinal Herb *Viola yedoensis*

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Table S1. Sequence Fragments from the Enzymatic Digestion of Cyclotides from *V. yedoensis*.

cyclotide	peptide sequenced			enzyme(s) used ^a	relative abundance (%) ^b	theoretical mass (Da)	experimental mass (Da)	Δm (Da) ^c
cycloviolacin Y1 (100) ^d	T10	-	Y17	CE	65	906.37	906.48	0.11
	G31	-	E9	CE	30	1169.48	1169.60	0.12
	T18	-	Y30	CE	56	1370.48	1370.64	0.16
	L13	-	Y26	CE	34	1437.48	1437.66	0.18
	G31	-	F12	CE	100	1520.60	1520.76	0.16
	G27	-	E9	CE	31	1640.64	1640.75	0.11
	G27	-	F12	CE	20	1991.76	1991.92	0.16
	T10	-	E9	TE	100	3411.29	3411.62	0.33
cycloviolacin Y2 (100) ^d	S10	-	Y17	CE	30	892.36	892.28	0.08
	G31	-	E9	CE	76	1169.48	1169.40	0.08
	G31	-	F12	CE	28	1506.58	1506.50	0.08
	G31	-	Y17	C	30	2043.81	2043.96	0.15
	T18	-	Y30	C	75	1333.50	1333.58	0.08
	S10	-	E9	TE	100	3360.29	3360.11	0.18
cycloviolacin Y3 (100) ^d	T10	-	Y17	CE	30	906.37	906.30	0.07
	G31	-	E9	CE	76	1169.48	1169.40	0.08
	G31	-	F12	CE	28	1520.60	1520.50	0.10
	G31	-	Y17	C	30	2043.81	2043.96	0.15
	T18	-	Y30	C	75	1333.50	1333.58	0.08
cycloviolacin Y4 (100) ^d	S7	-	E6	TE	76	3023.31	3023.61	0.30
	S7	-	Y28	CE	61	2253.97	2254.20	0.23
	I11	-	Y28	CE	76	1817.79	1817.98	0.19
	I11	-	E6	CE	20	2587.13	2587.40	0.27
cycloviolacin Y5 (100) ^d	S7	-	C13	CE	22	806.35	806.36	0.01
	T14	-	Y29	CE	32	1647.74	1647.78	0.04
	V19	-	E6	CE	24	1846.75	1846.73	0.02
	S7	-	L18	CE	64	1291.64	1291.64	0.00
	A17	-	Y29	CE	82	1346.58	1346.56	0.02
	I11	-	L18	C	34	816.45	816.48	0.03
	V19	-	Y29	C	10	1162.46	1162.46	0.00
	N30	-	W10	C	23	1177.50	1177.50	0.00
	I11	-	Y29	C	27	1960.89	1960.62	0.27
	V19	-	W10	C	21	2321.93	2322.02	0.09
	A17	-	W10	C	15	2506.06	2506.01	0.05

^aEnzymes used included trypsin (T), chymotrypsin (C), and endoGluC (E)

^bThe abundance relative to the most intense ion recorded in the TOF scan in the range 400-2000 Da

^cThe absolute difference between the theoretical and experimental mass

^dPercentage (%) sequence coverage

Figure S1. A MS/MS spectrum of a peptide fragment (S7-L18) from a chymotrypsin and endoGluC digest of cycloviolacin Y5. The b- and y- ions, which are the main ions observed in a MS/MS spectrum, have been labelled.

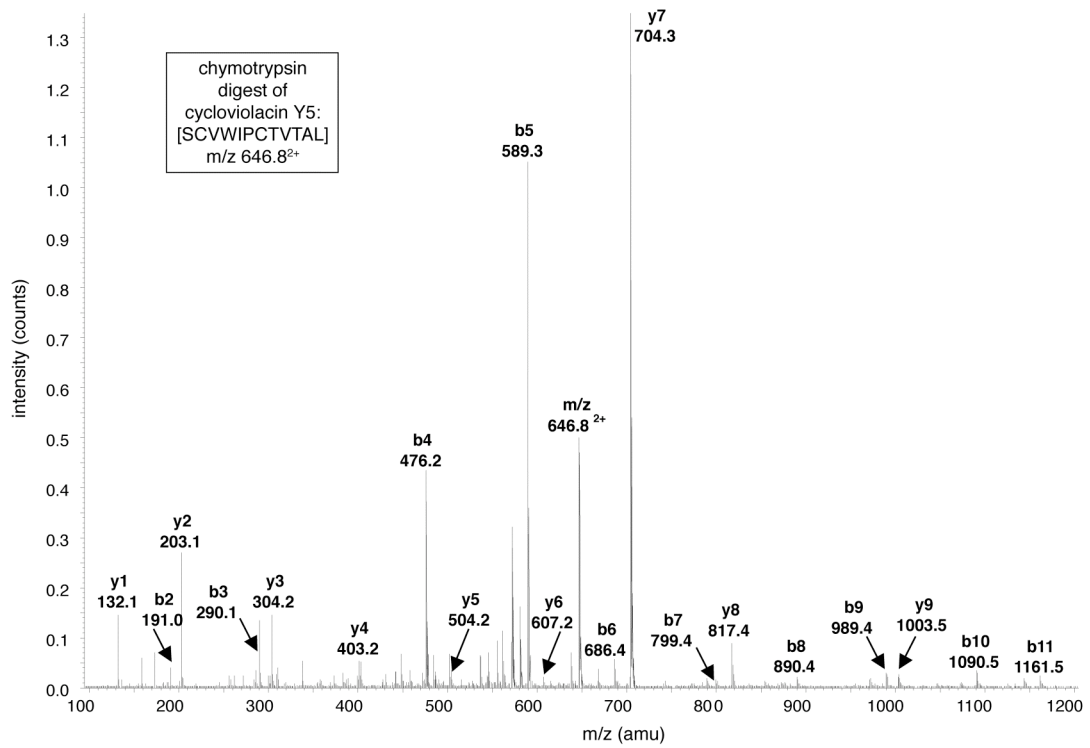


Figure S2. H α chemical shift comparisons for selected cyclotides. Panel (A) shows the comparison of H α chemical shifts between cycloviolacin Y1 and tricyclon A. Panel (B) shows the comparison of H α chemical shifts between cycloviolacin Y5 and cycloviolacin O1.

