

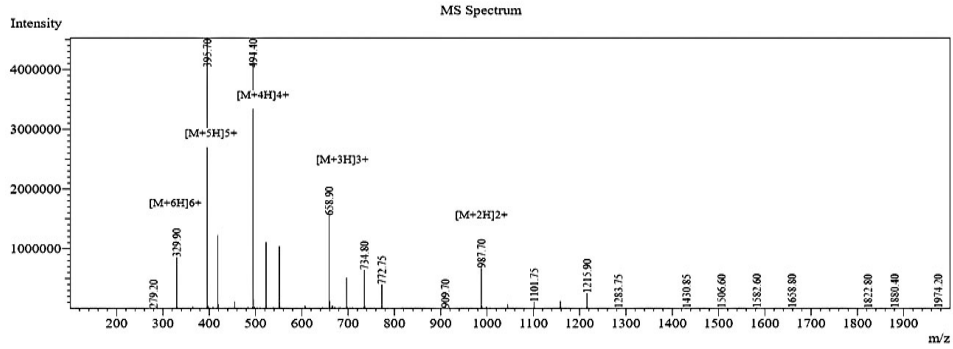
## Supplementary Materials

### Title:

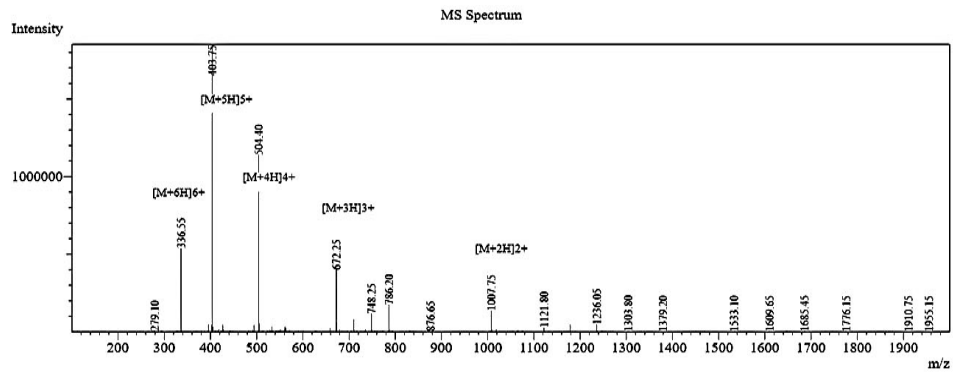
High Cell Selectivity and Bactericidal Mechanism of Symmetric Peptides Centered on D-Pro-Gly Pairs

### Authors:

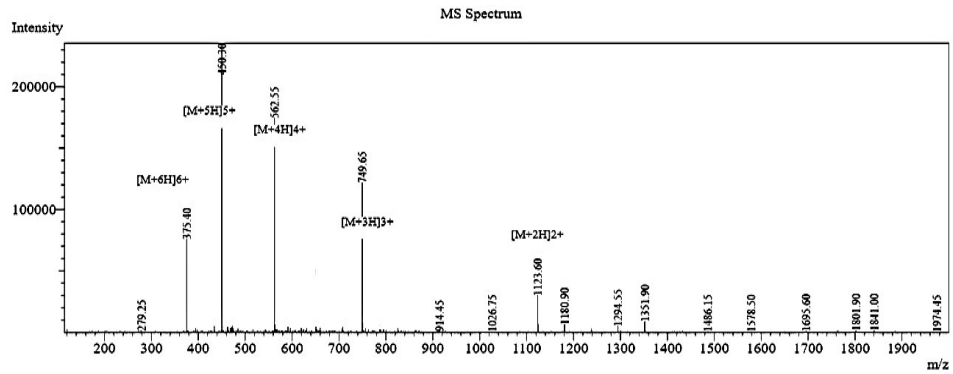
Bo-yan Jia, Yi-ming Wang, Ying Zhang, Zi Wang, Xue Wang, Inam Muhammad, Ling-cong Kong, Zhi-hua Pei, Hong-xia Ma \* and Xiu-yun Jiang \*



(a)



(b)



(c)

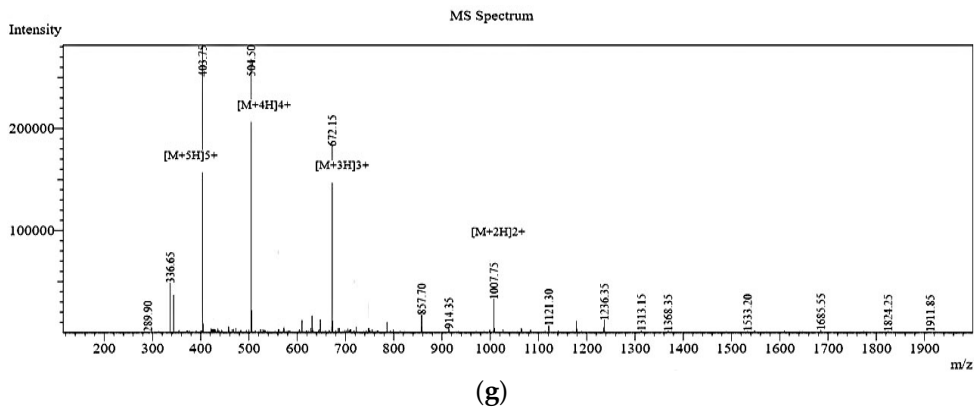
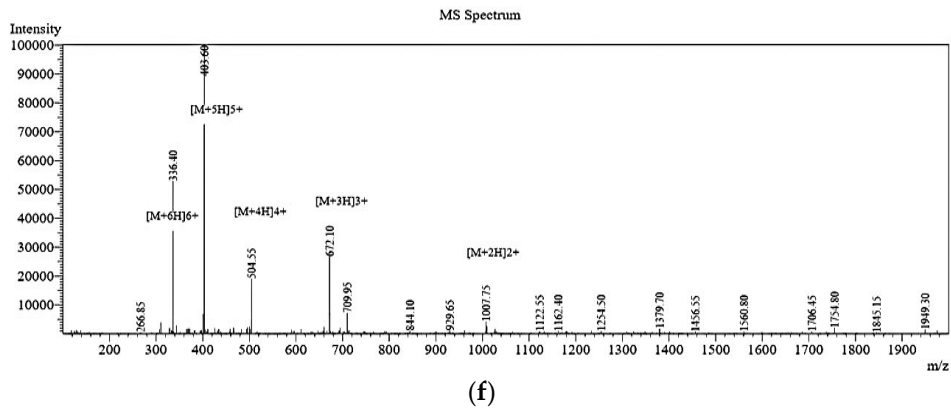
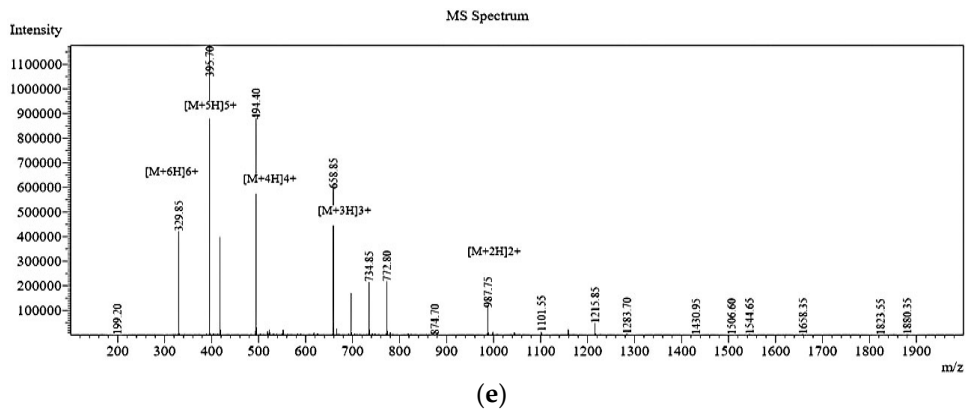
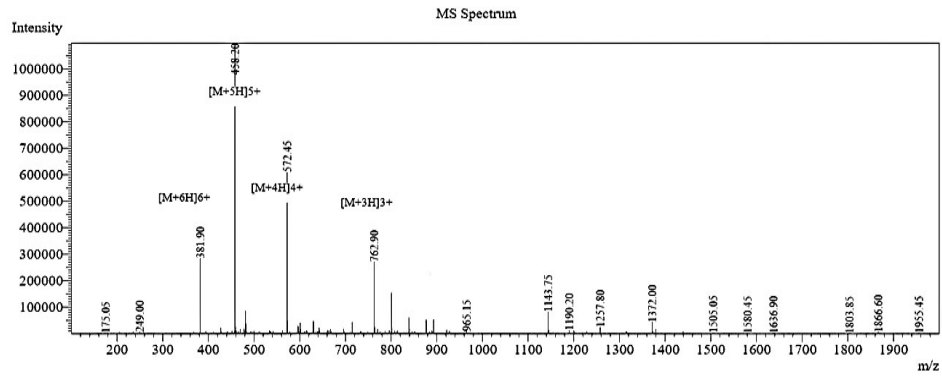
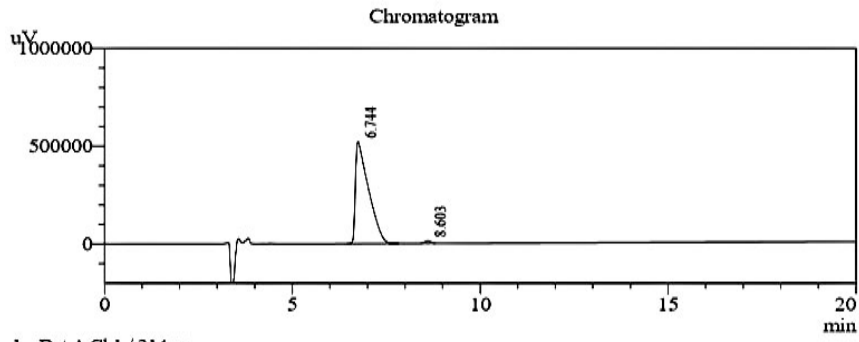


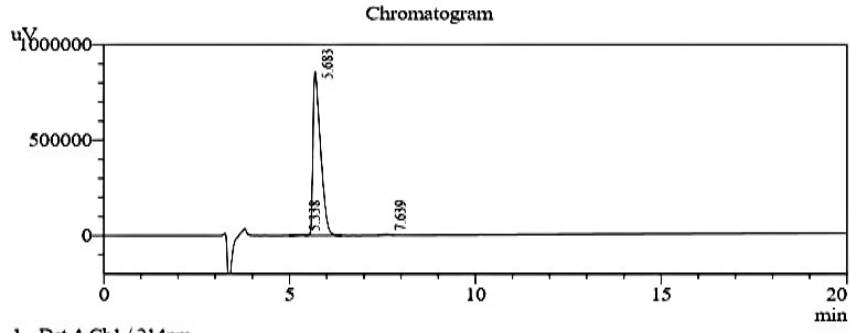
Figure S1. The MALDI-TOF MS of IR<sub>GG</sub> (a), IR<sub>PG</sub> (b), FR<sub>GG</sub> (c), FR<sub>PG</sub> (d), LR<sub>GG</sub> (e), LR<sub>PG</sub> (f) and LR<sub>α</sub> (g).



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.744	12625051	521779	98.943	97.631
2	8.603	134844	12662	1.057	2.369
Total		12759894	534441	100.000	100.000

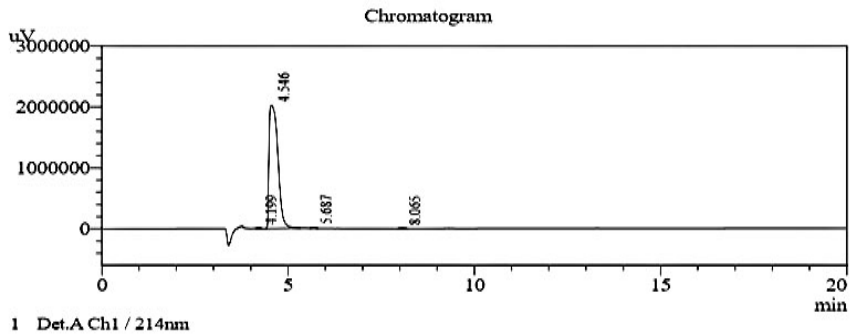
(a)



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	5.338	71453	5384	0.577	0.620
2	5.683	12251155	859064	98.848	98.867
3	7.639	71307	4461	0.575	0.513
Total		12393915	868909	100.000	100.000

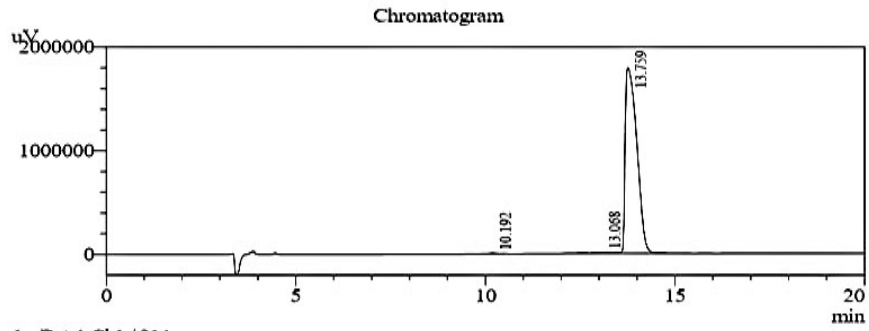
(b)



PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	4.199	86181	17176	0.256	0.833
2	4.546	33441691	2025416	99.356	98.225
3	5.687	87508	13702	0.260	0.664
4	8.065	43064	5715	0.128	0.277
Total		33658444	2062009	100.000	100.000

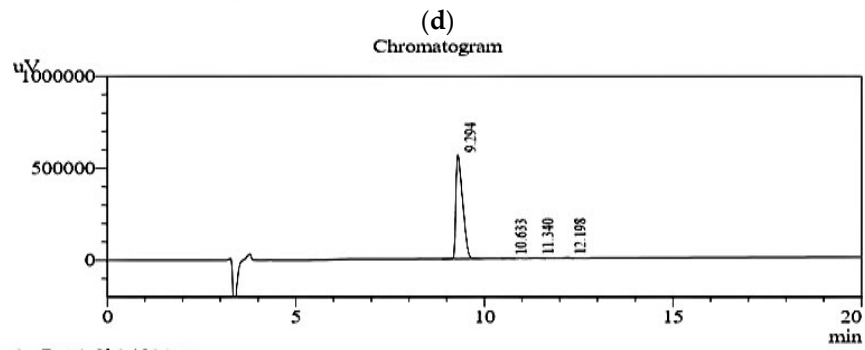
(c)



**PeakTable**

Detector A Ch1 214nm

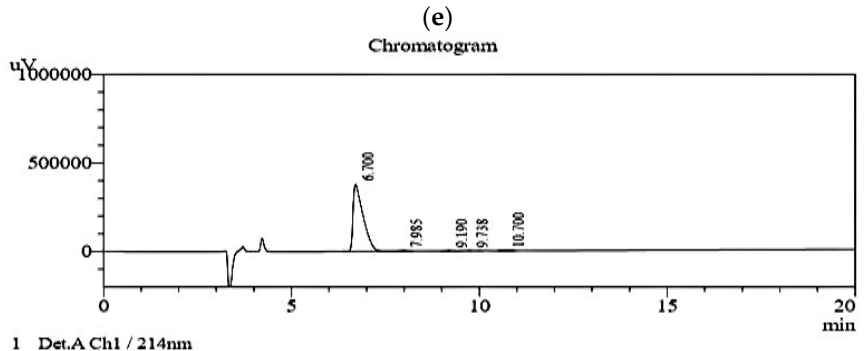
Peak#	Ret. Time	Area	Height	Area %	Height %
1	10.192	73083	7429	0.190	0.411
2	13.068	237994	10652	0.618	0.589
3	13.759	38185101	1790524	99.192	99.000
Total		38496177	1808605	100.000	100.000



**PeakTable**

Detector A Ch1 214nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	9.294	7005832	564679	99.045	98.718
2	10.633	15032	1699	0.213	0.297
3	11.340	32329	2858	0.457	0.500
4	12.198	20208	2777	0.286	0.485
Total		7073400	572014	100.000	100.000

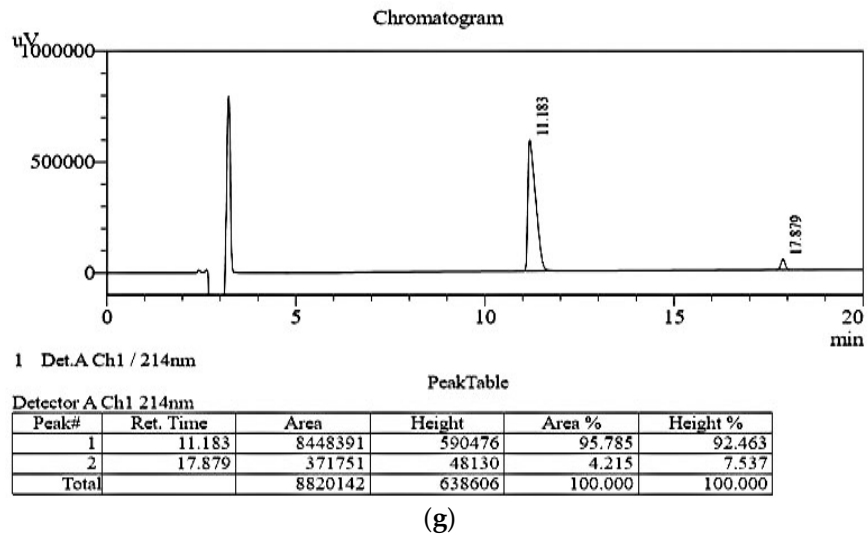


**PeakTable**

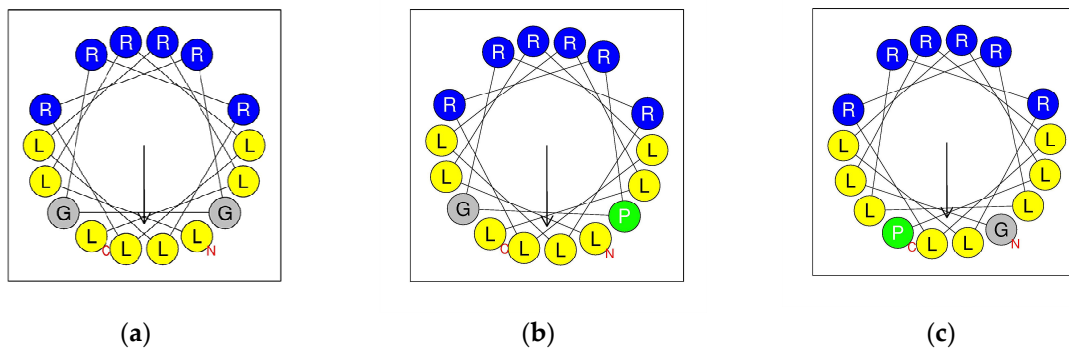
Detector A Ch1 214nm

Peak#	Ret. Time	Area	Height	Area %	Height %
1	6.700	7041113	380803	98.610	98.042
2	7.985	50078	3450	0.701	0.888
3	9.190	16651	1769	0.233	0.455
4	9.738	14363	1209	0.201	0.311
5	10.700	18128	1175	0.254	0.303
Total		7140334	388406	100.000	100.000

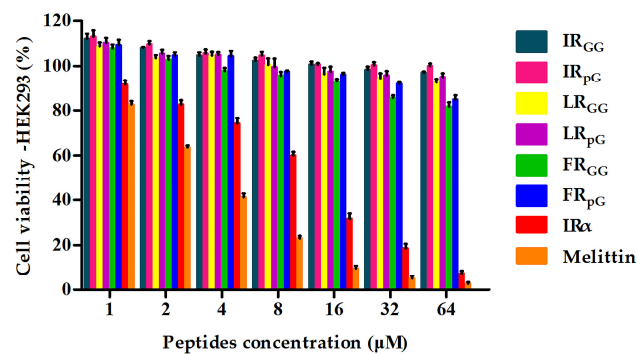
**(f)**



**Figure S2.** The HPLC spectra of IR<sub>GG</sub> (a), IR<sub>pG</sub> (b), FR<sub>GG</sub> (c), FR<sub>pG</sub> (d), LR<sub>GG</sub> (e), LR<sub>pG</sub> (f) and LR $\alpha$  (g).



**Figure S3.** The helical wheel projections of LR<sub>GG</sub> (a), LR<sub>pG</sub> (b) and LR $\alpha$  (c). The blue represents positively charged residues. The yellow represents hydrophobicity residues. The gray and green represent glycine and proline, respectively.



**Figure S4.** Cytotoxicity of the designed peptides against HEK293T cells.