

Supplemental Information

Peptide Polymers Displaying Potent Activity against Clinically Isolated

Multi-Drug Resistant *Pseudomonas aeruginosa* *in vitro* and *in vivo*

Weinan Jiang,^{a,b,c} Ximian Xiao,^{a,b,c} Yueming Wu,^{a,b,c} Weiwei Zhang,^{a,b,c} Zihao Cong,^{a,b,c} Jingjing Liu,^{a,b,c} Sheng Chen,^{a,b,c} Haodong Zhang,^{a,b,c} Jiayang Xie,^{a,b,c} Shuai Deng,^{a,b,c} Minzhang Chen,^{a,b,c} Yun Wang,^d Xiaoyan Shao,^d Yun Sun,^d Yidong Dai,^d Jian Fei,^e and Runhui Liu*^{a,b,c}

^aState Key Laboratory of Bioreactor Engineering, East China University of Science and Technology, Shanghai 200237, China

^bKey Laboratory for Ultrafine Materials of Ministry of Education, East China University of Science and Technology, Shanghai 200237, China

^cResearch Center for Biomedical Materials of Ministry of Education, East China University of Science and Technology, Shanghai 200237, China

^dShanghai Ruijin Rehabilitation Hospital, Shanghai 200023, China

^eDepartment of General Surgery, Ruijin Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai 200025, China

Correspondence should be addressed to R.L. (rliu@ecust.edu.cn)

Fig. S1 GPC traces for peptide polymer batch 1 (90:10 DLL:BLG) at the sidechain protected stage.

Fig. S2 GPC traces for peptide polymer batch 2 (90:10 DLL:BLG) at the sidechain protected stage.

Fig. S3 GPC traces for peptide polymer batch 3 (90:10 DLL:BLG) at the sidechain protected stage.

Fig. S4 GPC traces for peptide polymer batch 4 (90:10 DLL:BLG) at the sidechain protected stage.

Fig. S5 GPC traces for peptide polymer batch 5 (90:10 DLL:BLG) at the sidechain protected stage.

Fig. S6 ¹H NMR for peptide polymers 90:10 DLL:BLG from five batches.

Table S1 Subunit (amino acid residue) composition of 90:10 DLL:BLG from five batches observed by ¹H NMR.

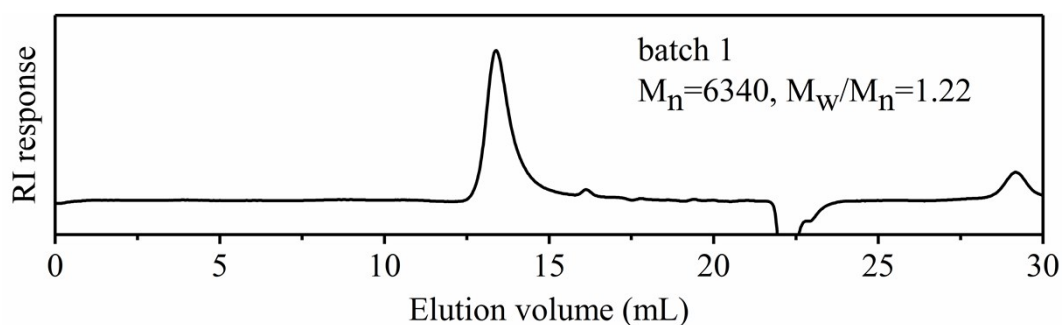


Fig. S1 GPC trace for the peptide polymer batch 1 (90:10 DLL:BLG) at the sidechain protected stage using DMF as the mobile at a flow rate of 1 mL min^{-1} .

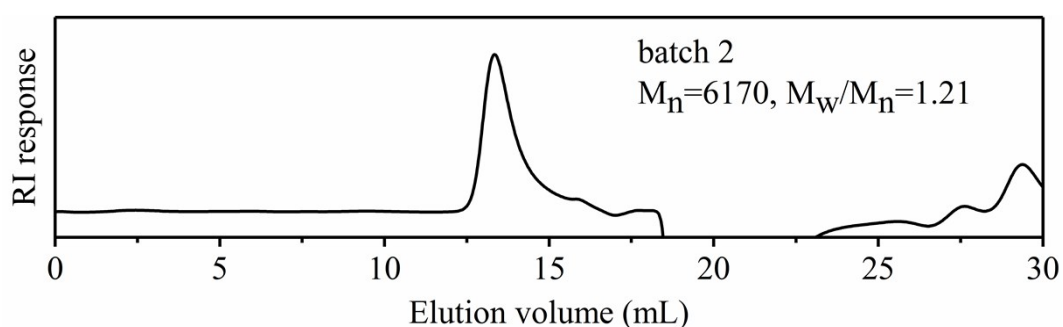


Fig. S2 GPC trace for the peptide polymer batch 2 (90:10 DLL:BLG) at the sidechain protected stage using DMF as the mobile at a flow rate of 1 mL min^{-1} .

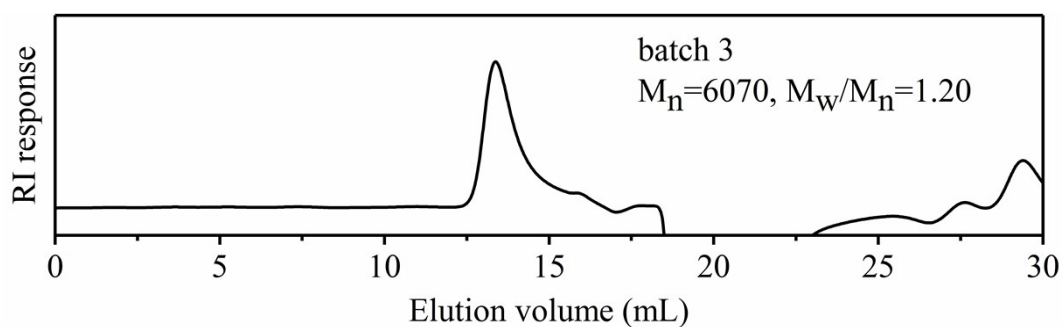


Fig. S3 GPC trace for the peptide polymer batch 3 (90:10 DLL:BLG) at the sidechain protected stage using DMF as the mobile at a flow rate of 1 mL min^{-1} .

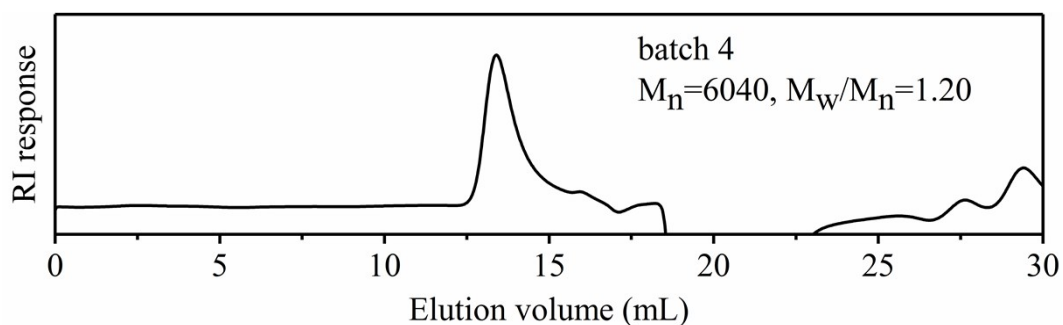


Fig. S4 GPC trace for the peptide polymer batch 4 (90:10 DLL:BLG) at the sidechain protected stage using DMF as the mobile at a flow rate of 1 mL min^{-1} .

as the mobile at a flow rate of 1 mL min⁻¹.

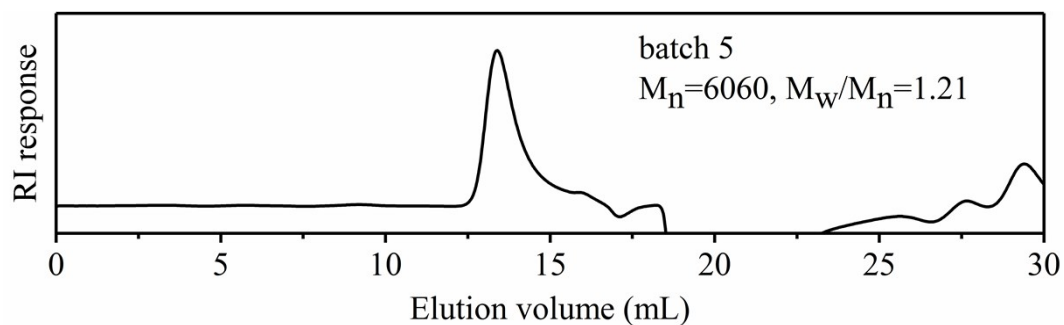


Fig. S5 GPC trace for the peptide polymer batch 5 (90:10 DLL:BLG) at the sidechain protected stage using DMF as the mobile at a flow rate of 1 mL min⁻¹.

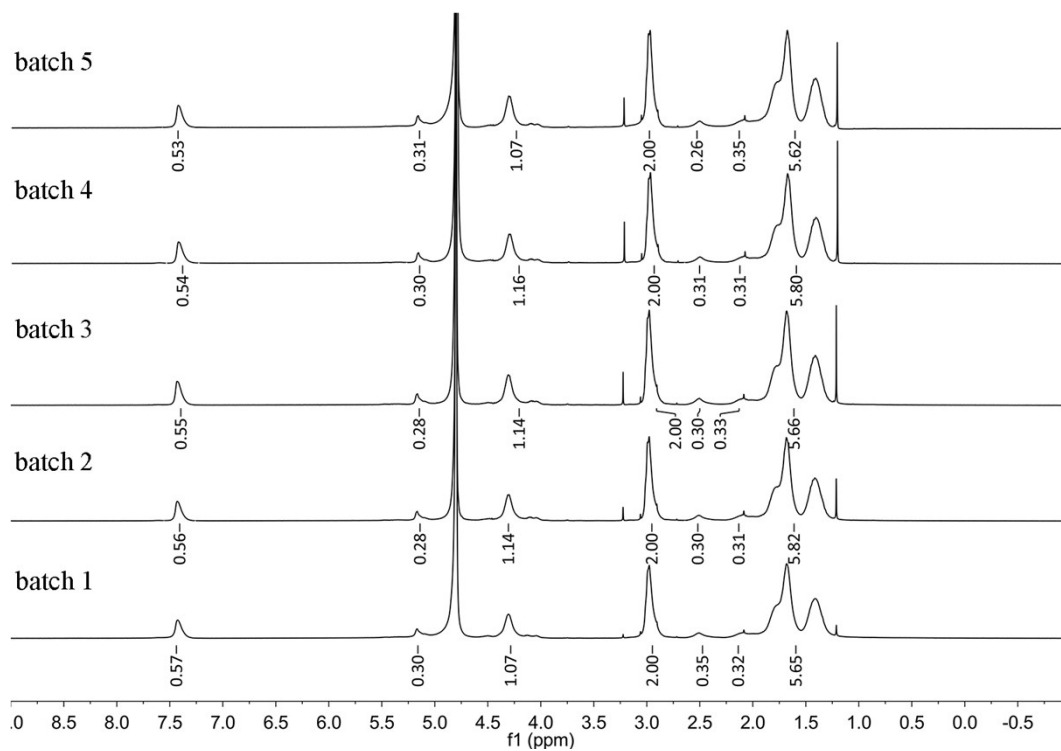


Fig. S6 ¹H NMR for peptide polymers 90:10 DLL:BLG from five batches in D₂O, 400 MHz.

Table S1. Subunit (amino acid residue) composition of peptide polymers 90:10 DLL:BLG obtained from different batches observed by ¹H NMR.

Different batches	Feed ratio of (Boc-DLL NCA):(BLG NCA)	Subunit composition ^a observed by ¹ H NMR
batch 1	9:1	8.77:1
batch 2	9:1	8.93:1
batch 3	9:1	9.09:1
batch 4	9:1	9.26:1
batch 5	9:1	9.43:1

^a Subunit composition was calculated as follow: $\text{Ratio}_{(\text{DLL}:\text{BLG})} = [\text{H}_{(\text{peak at } 2.7\sim 3.2 \text{ ppm})}/2]:[\text{H}_{(\text{peak at } 7.2\sim 7.5 \text{ ppm})}/5]$