

## Electronic Supplementary Information

### Gram-Selective Antibacterial Peptide Hydrogels

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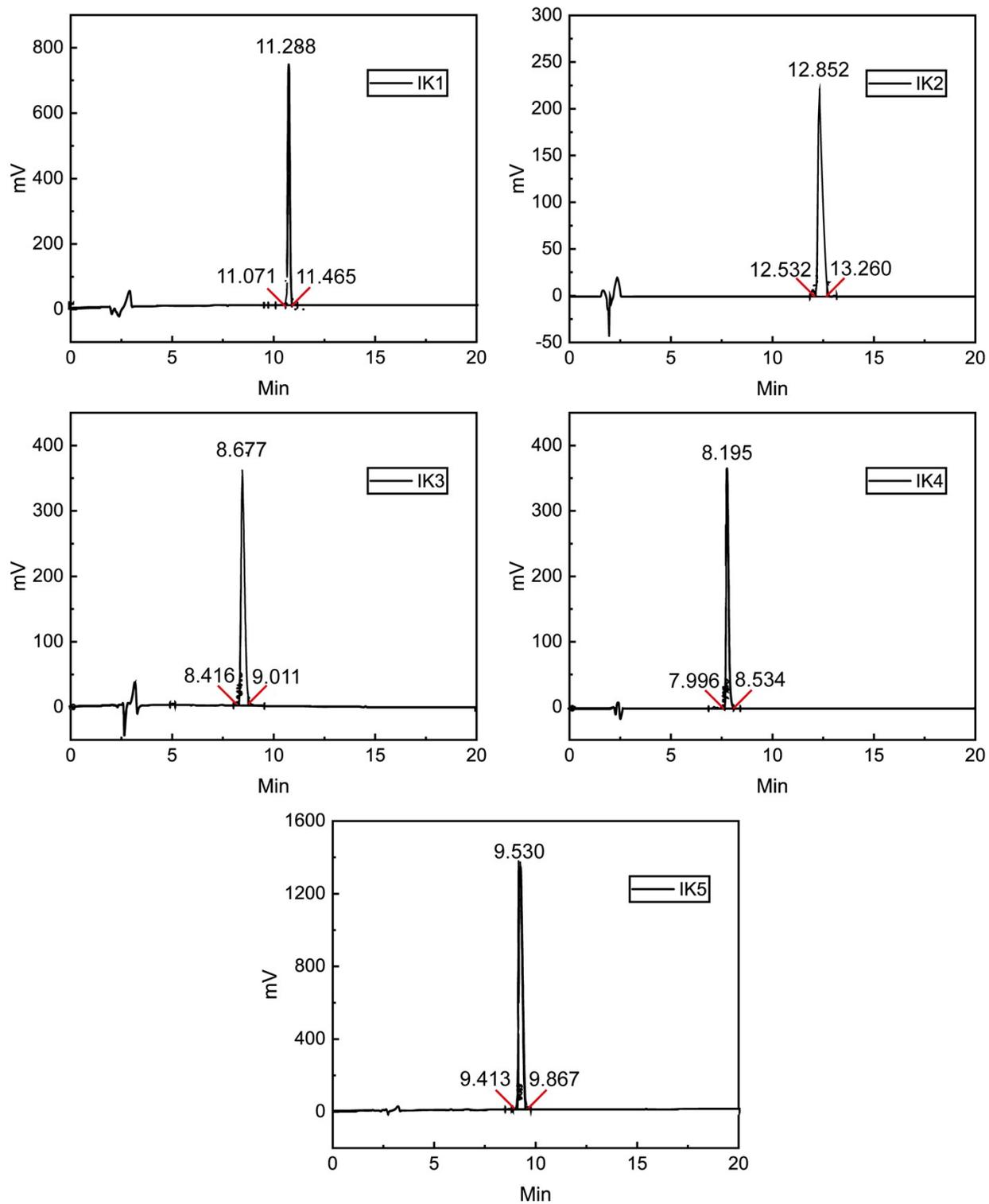


Figure S1 HPLC chromatograms of the IK1, IK2, IK3, IK4 and IK5 molecules.

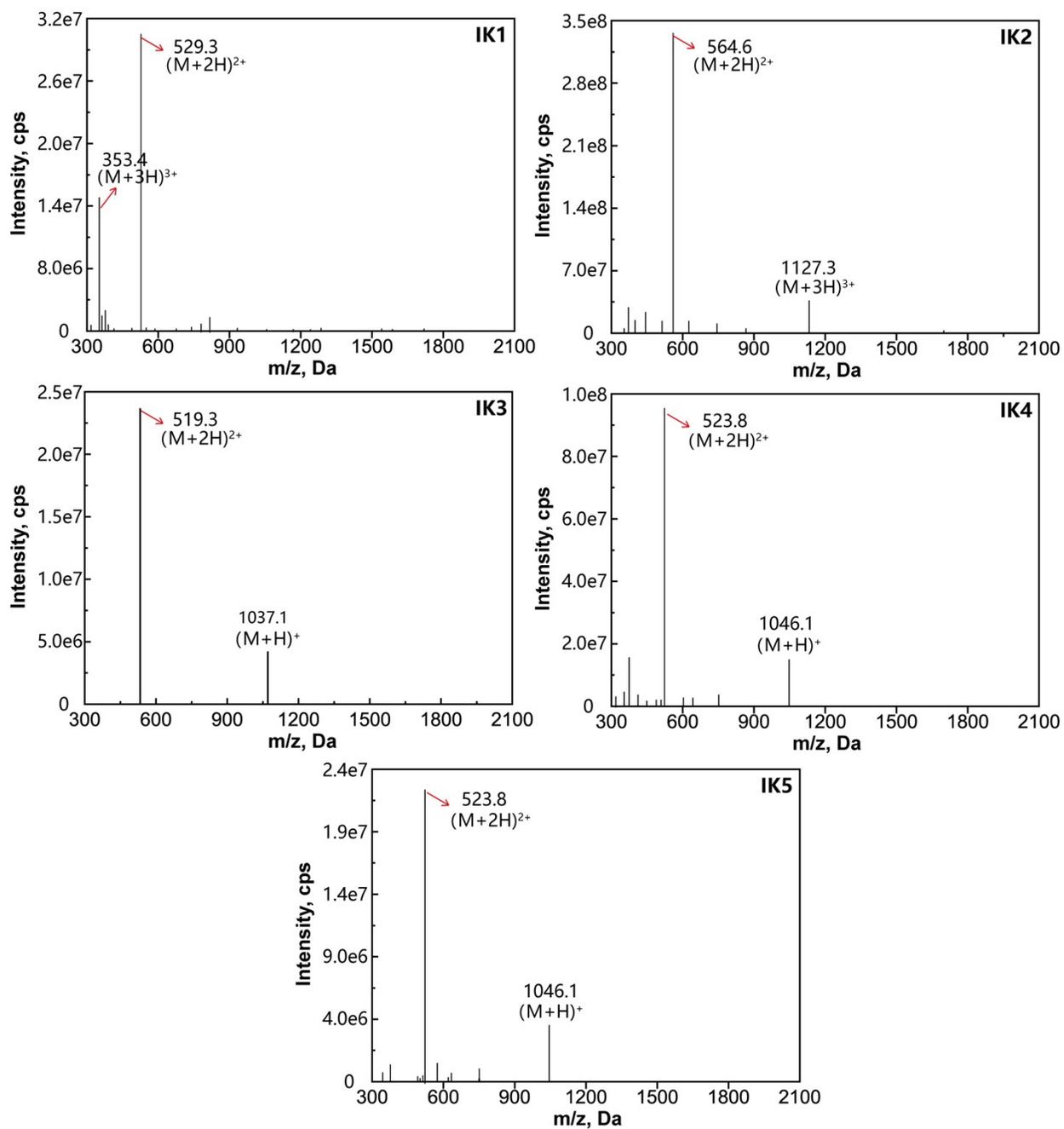
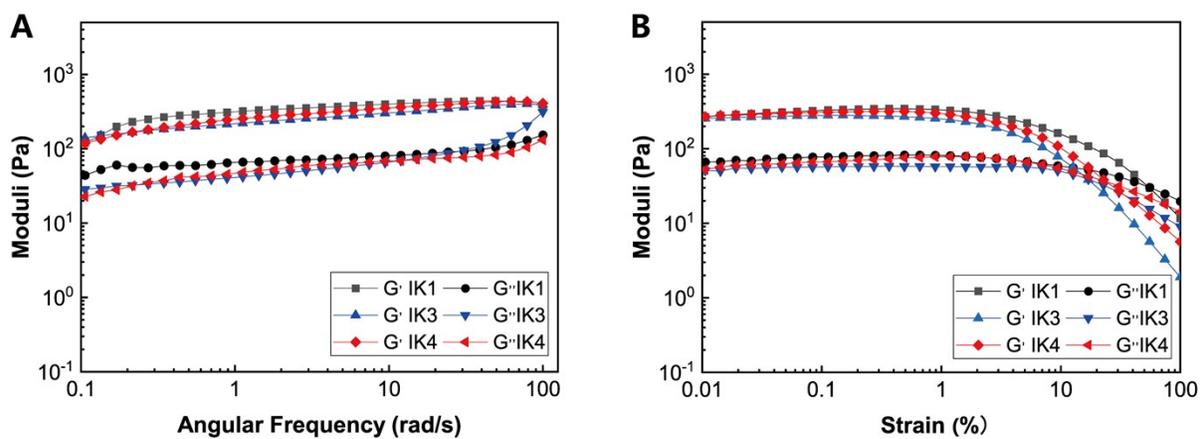


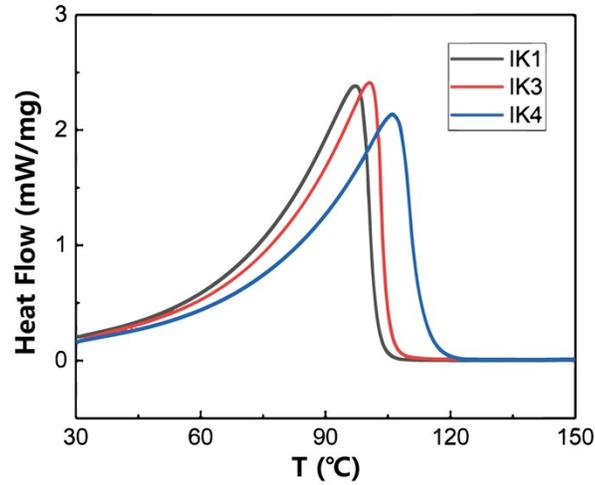
Figure S2 ESI-MS spectra of IK1, IK2, IK3, IK4 and IK5 molecules.



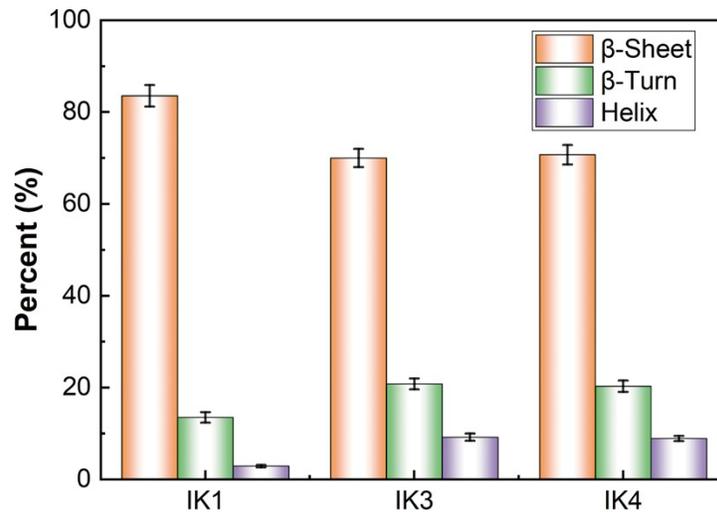
**Figure S3** The optical images of the hydrogels formed by IK1, IK3 and IK4 with a concentration of 4 mg/ml.



**Figure S4** Mechanical properties of hydrogels by IK1, IK3 and IK4 at 15 mg/ml. a) Frequency sweep and b) strain sweep.



**Figure S5** Differential scanning calorimetric curves of AMP hydrogels. In the test, 10 mg of each hydrogel (formed with a peptide concentration of 20 mg/ml in PBS) was placed in an aluminum crucible of a differential scanning calorimeter (Perkin-Elmer DSC-2). The DSC curves were recorded in the temperature range from 27°C to 150°C with a heating rate of 5 k/min.



**Figure S6** Histograms of the secondary structures of IK1, IK3 and IK4 peptides measured by circular dichroism.