Supporting information

Surface Physical Activity and Hydrophobicity of Designed Helical Peptide Amphiphiles Control Their Bioactivity and Cell Selectivity

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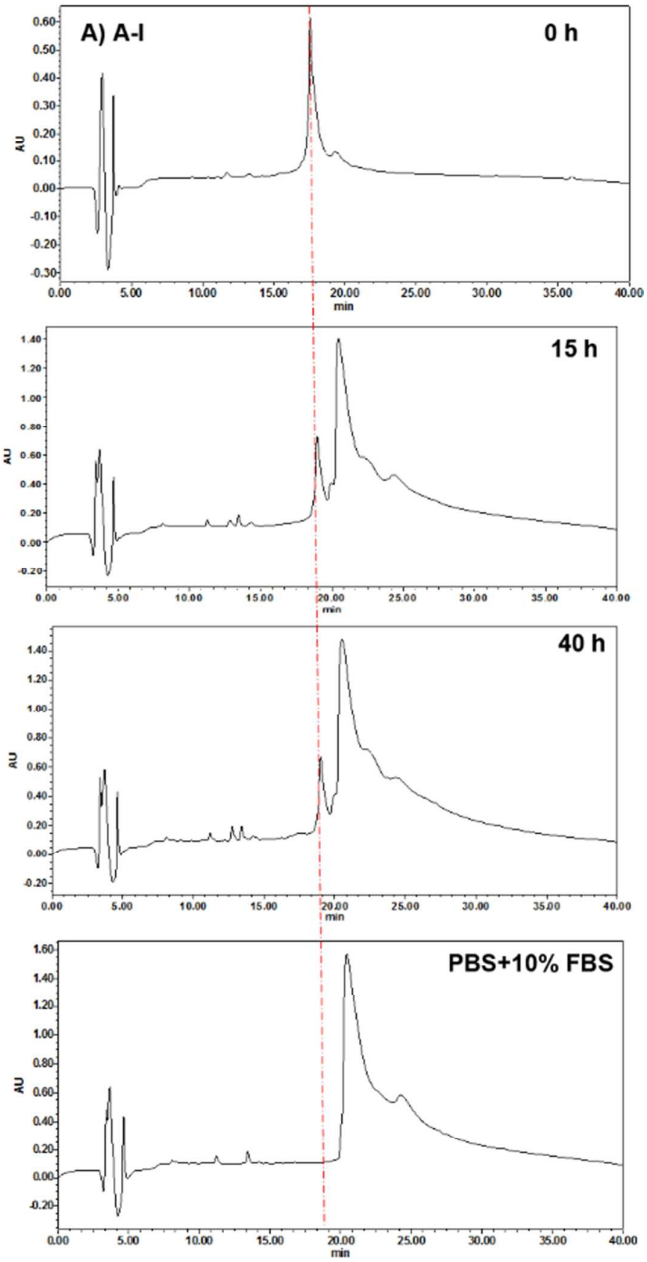
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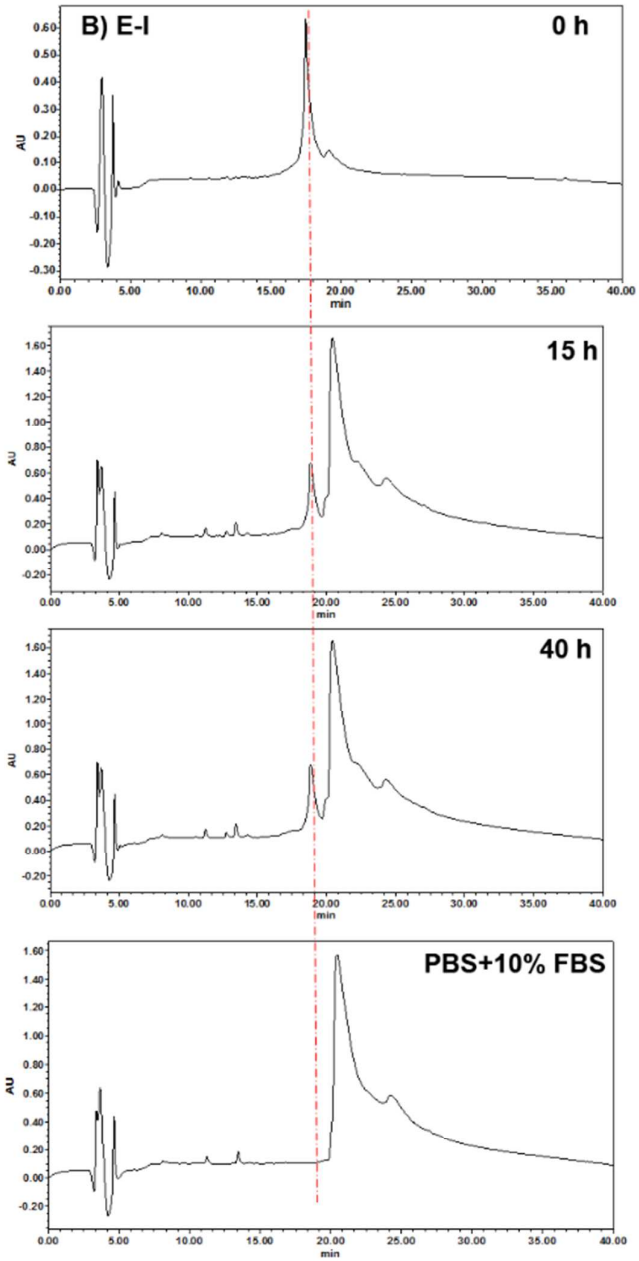
PBS+10% FBS
AU
min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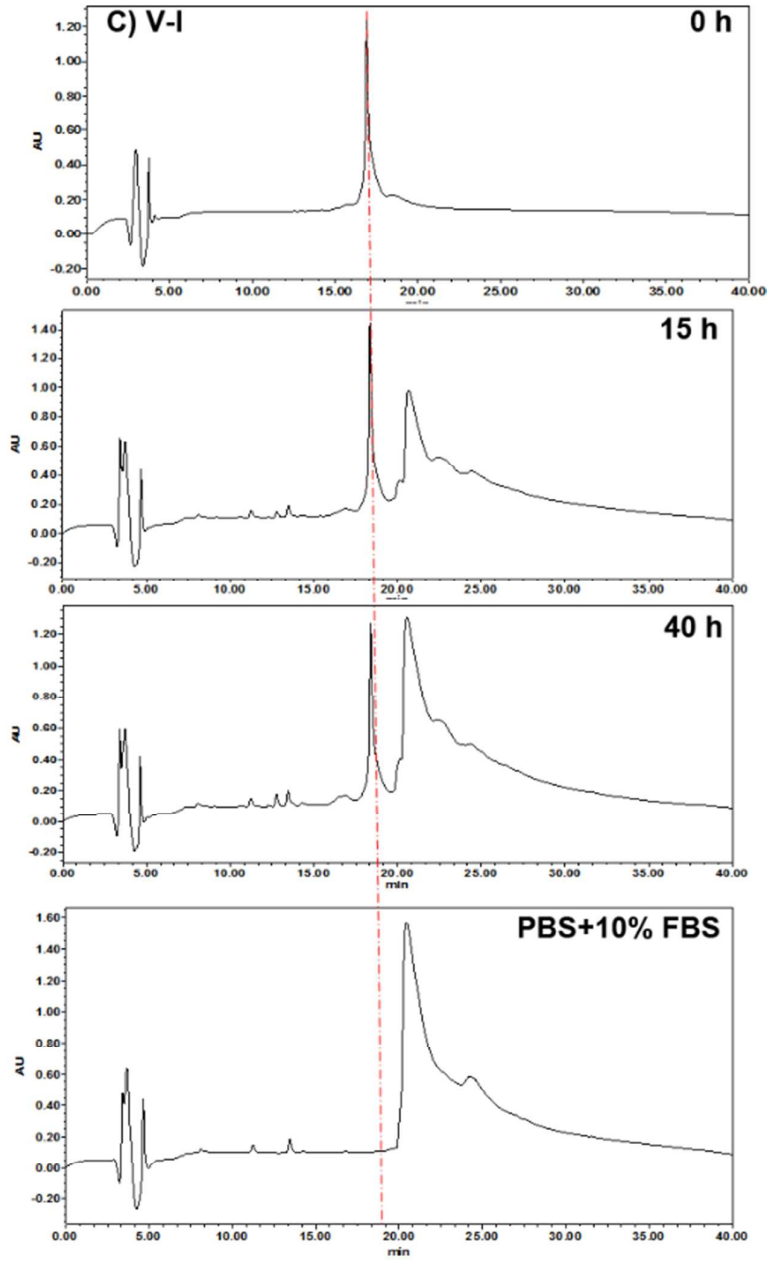
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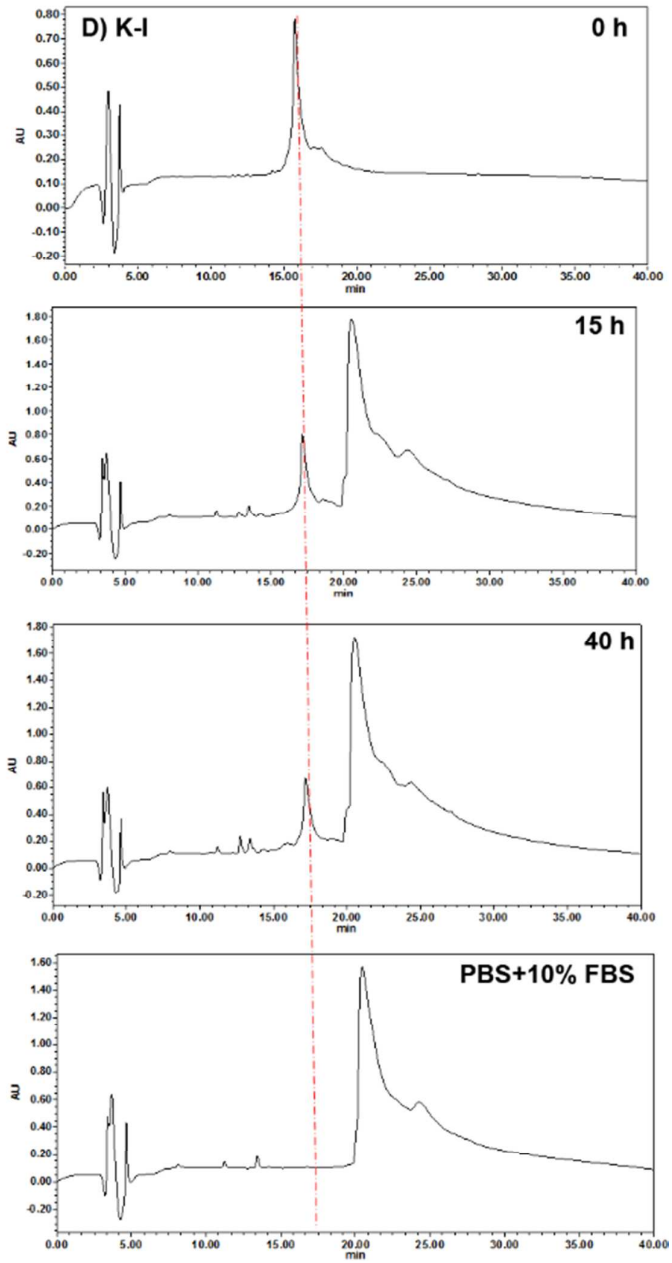
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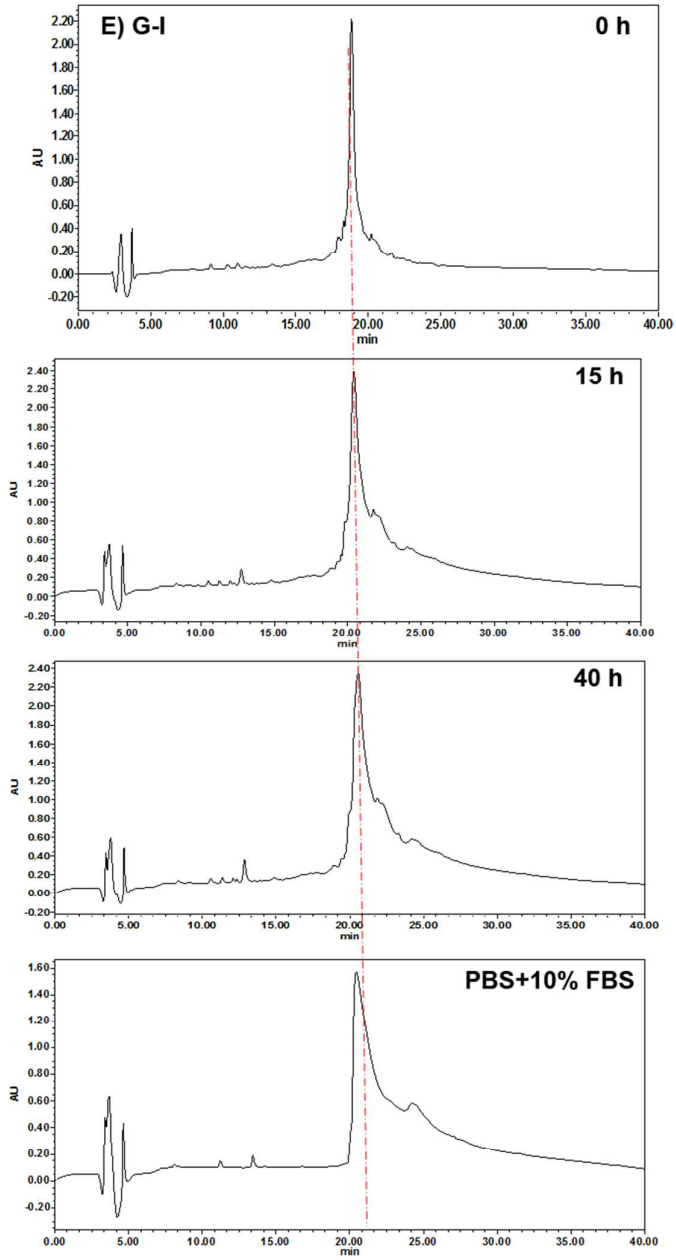
E) G-I
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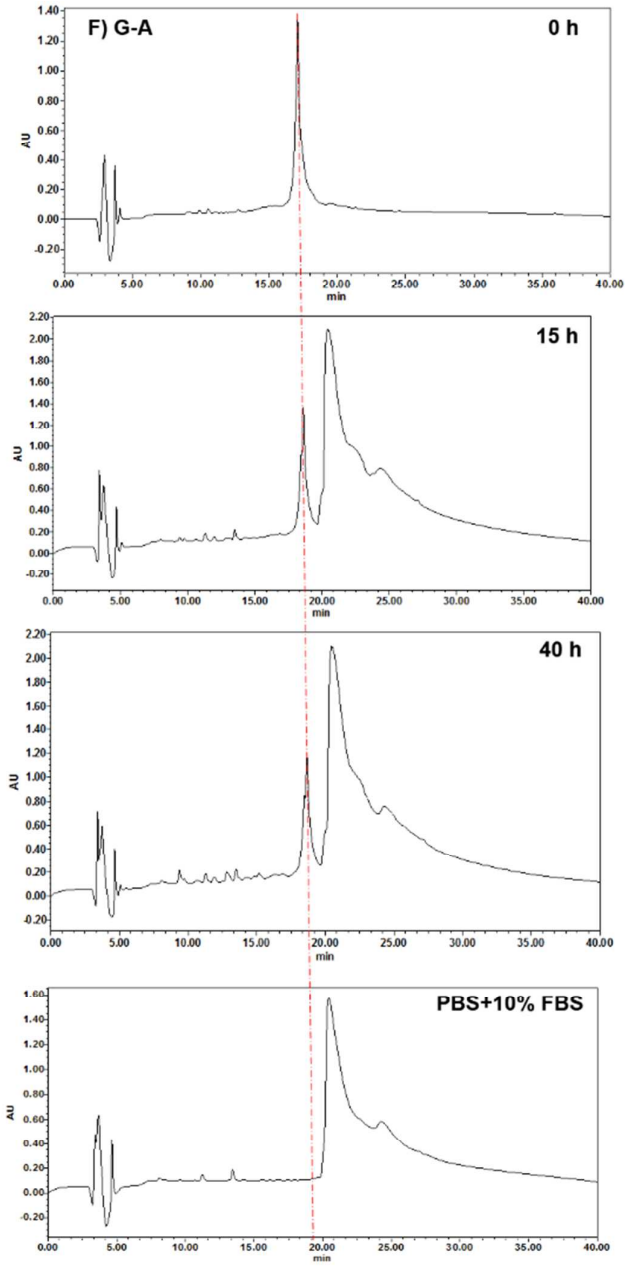
PBS+10% FBS
AU
min


F) G-A
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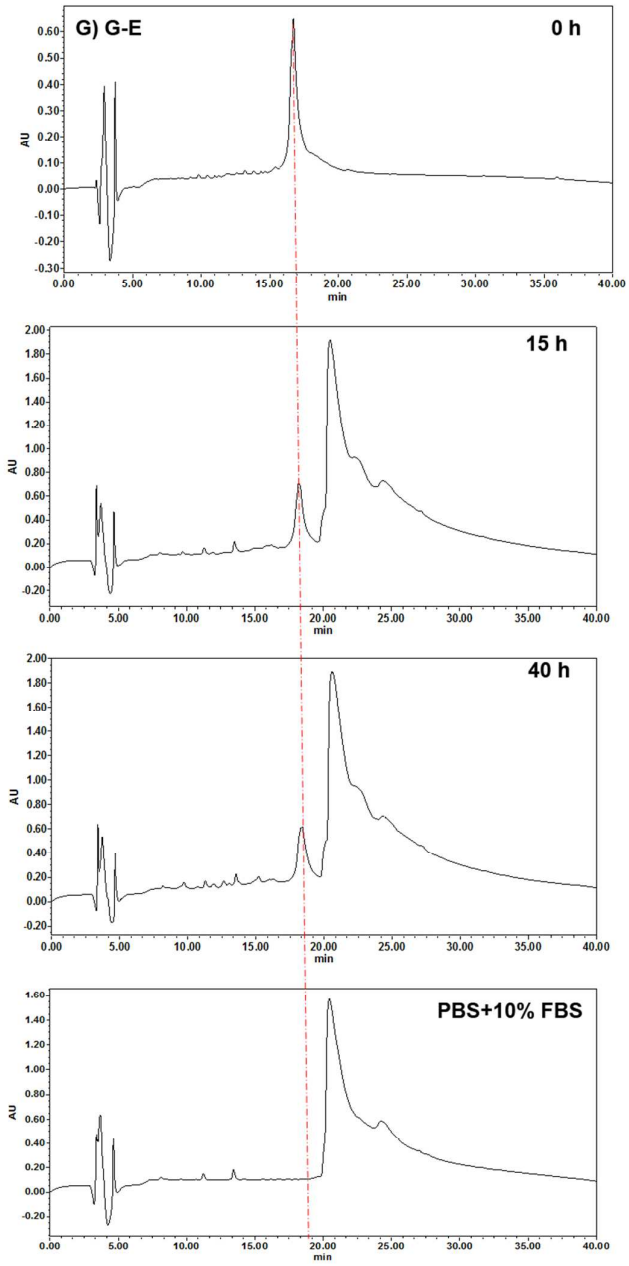
G) G-E
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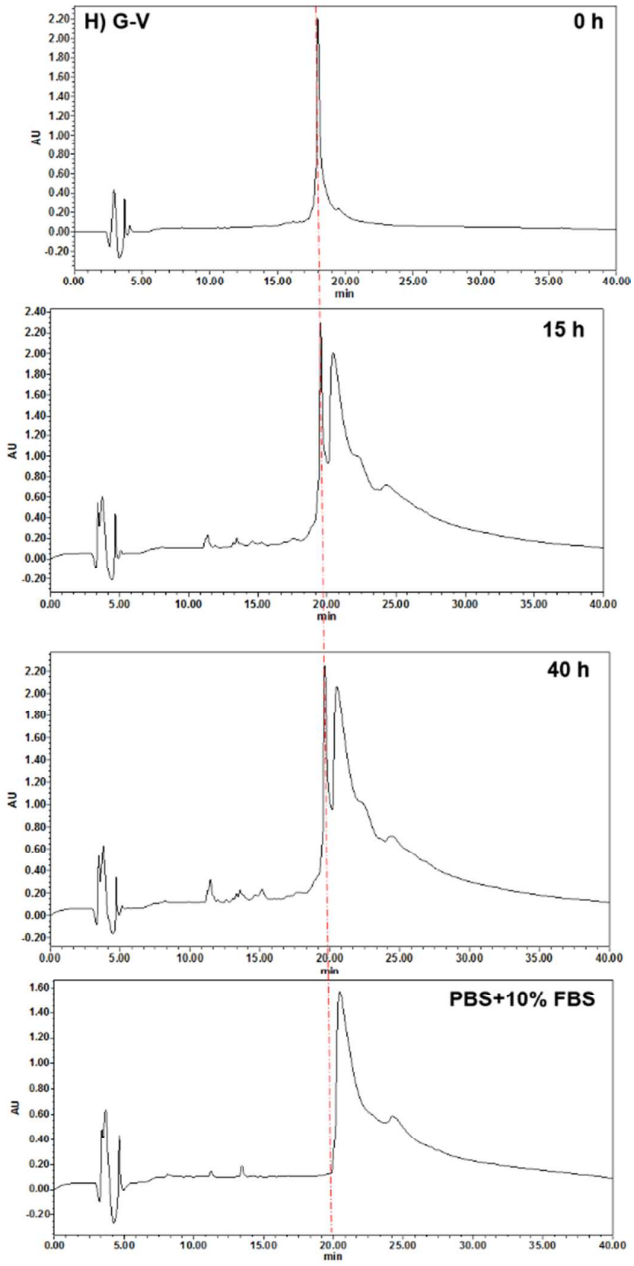
AU
min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min

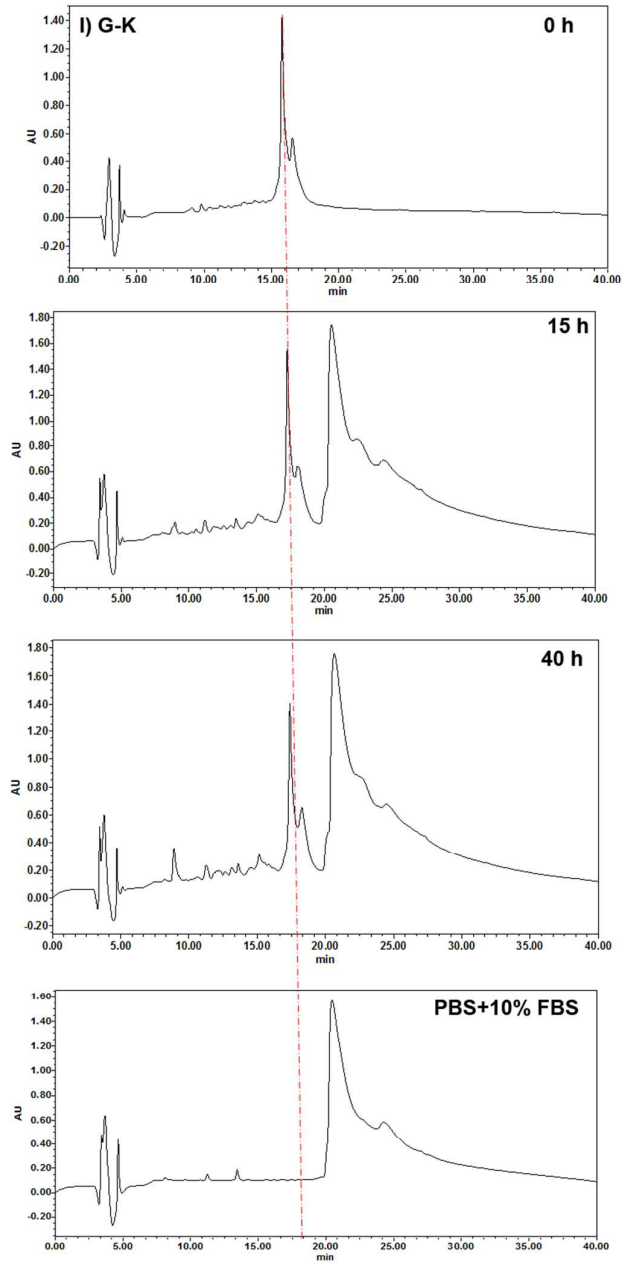

Figure S1. HPLC spectra of A) A-I, B) E-I, C) V-I, D) K-I, E) G-I, F) G-A, G) G-E, H) G-V, and I) G-K peptides in the absence of 10% fetal bovine serum (FBS) (0 h) and in the presence of 10% FBS (incubation for 15 h and 40 h). The spectrum of 10% FBS in PBS served as control. HPLC conditions: The peptide concentration was fixed at 1 mg mL^{-1}. HPLC profiles were recorded on a Waters 2695 Alliance system equipped with

a C18 reversed-phase column (4.6 mm × 150 mm) at room temperature. After being loaded, the samples were eluted *via* a gradient mode as follows: 0–5 min, an isocratic elution of 95% eluent A (0.1% trifluoroacetic acid (TFA) in water) and 5% eluent B (0.1% TFA in acetonitrile); 5–40 min, a linear gradient elution to 5% eluent A and 95% eluent B; 40–45 min, a linear gradient elution back to 95% eluent A and 5% eluent B. The flow rate was 0.6 mL min^{-1} and the UV detector was set at 214 nm.

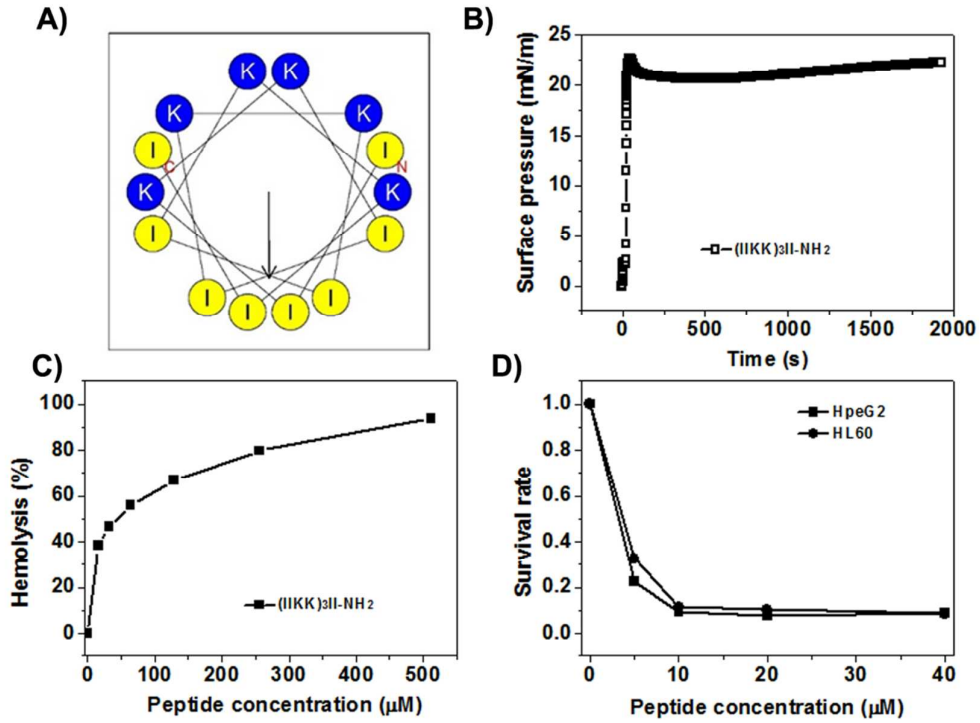

Figure S2. A) Helical wheel of $(IIKK)_3II\text{-}NH_2$. B) Surface pressure achieved after $(IIKK)_3II\text{-}NH_2$ adsorption at the air/water interface; the sub-phase was Tris-HCl with 150 mM NaCl (pH 7.4), and the peptide concentration was fixed at 3 μM. C) Hemolytic activity of $(IIKK)_3II\text{-}NH_2$ determined by monitoring the hemoglobin release from human fresh blood cells after adding the peptide. D) Anticancer activity of $(IIKK)_3II\text{-}NH_2$ against HpeG2 and HL60 cells measured by MTT assays.