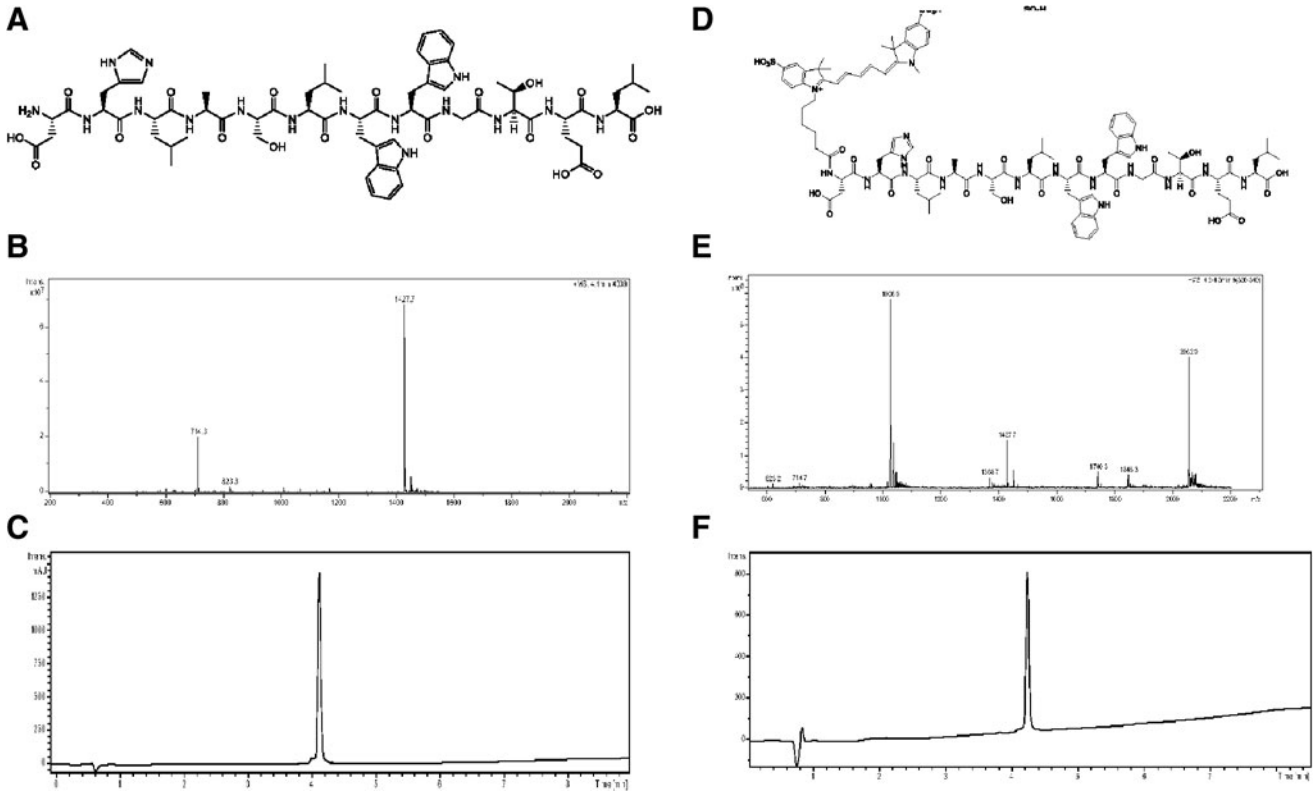

SUPPLEMENTARY FIG. S1. Characterization of TJ12P1 and sulfo-Cy5-TJ12P1. **(A)** Chemical structure of TJ12P1 (sequence: DHLASLWWGTEL). Chemical formula: $C_{67}H_{95}N_{17}O_1$, Molecular weight: 1426.60 g/mol. **(B)** Mass Spec of TJ12P1, two ions were detected, those of [TJ12P1]2+ (*m/z* 714.3) and $[TJ12P1]^+$ (*m/z* 1427.7). **(C)** Analytical HPLC chromatogram of TJ12P. Retention time (t_R) = 4.18 min using a binary H_2O/ACN mobile phase containing 0.05% TFA. **(D)** Chemical structure of sulfo-Cy5-TJ12P1. Chemical formula: $C_{99}H_{132}N_{19}O_{25}S_2^+$, Molecular weight: 2052.37 g/mol. **(E)** Mass Spec of sulfo-Cy5-TJ12P1, multiple ions were detected with the two dominant peaks of the spectrum being [sulfo-Cy5-TJ12P1]2+ (*m/z* 1026.9) and $[sulfo\text{-}Cy5\text{-}TJ12P1]^+$ (*m/z* 2052.9). **(F)** Analytical HPLC chromatogram of sulfo-Cy5-TJ12P1. Retention time (t_R) = 4.22 min using a binary H_2O/ACN mobile phase containing 0.05% TFA. HPLC, high-performance liquid chromatography; TFA, trifluoroacetic acid.