

SUPPLEMENTARY FIG. S2. Characterization of KKK-L5 and sulfo-Cy5-KKK-L5. (**A**) Chemical structure of KKK-L5 (sequence: KKKRLNVGGTYFLTTRQ). Chemical formula: $C_{90}H_{152}N_{28}O_{24}$, Molecular weight: 2010.38 g/mol. (**B**) Mass Spec of KKK-L5, multiple ions were detected; of these, two ions and their corresponding peaks were [KKK-L5]2+ (m/z 1005.9) and [KKK-L5]⁺ (m/z 2011.0). (**C**) Analytical HPLC chromatogram of KKK-L5. Retention time (t_R) = 3.24 min using a binary H_2O/ACN mobile phase containing 0.05% TFA. (**D**) Chemical structure of sulfo-Cy5-KKK-L5. Chemical formula: $C_{122}H_{189}N_{30}O_{31}S_2^+$, Molecular weight: 2636.15 g/mol. (**E**) Mass Spec of sulfo-Cy5-KKK-L5, multiple ions were detected with a dominant peak and species of the spectrum being [sulfo-Cy5-KKK-L5]+ (m/z 1318.3). (**F**) Analytical HPLC chromatogram of sulfo-Cy5-KKK-L5. Retention time (t_R) = 3.4 min using a binary H_2O/ACN mobile phase containing 0.05% TFA.