



SUPPLEMENTARY FIG. S3. Characterization of WLSHLGDLTWEA (scrambled TJ12P1) and sulfo-Cy5-WLSHLGDLTWEA. **(A)** Chemical structure of sulfo-Cy5-TJ12P1 scramble (sequence: WLSHLGDLTWEA). Chemical formula: $C_{99}H_{131}N_{18}O_{26}S_2$, Molecular weight: 2053.36 g/mol. **(B)** Mass Spec of sulfo-Cy5-WLSHLGDLTWEA, a single species was detected, namely, the ion [sulfo-Cy5-WLSHLGDLTWEA] $^{2+}$ (m/z 1026.9). **(C)** Analytical HPLC chromatogram of sulfo-Cy5-WLSHLGDLTWEA. Retention time (t_R)=4.30 min using a binary H_2O/ACN mobile phase containing 0.05% TFA. **(D)** Chemical structure of Cy5-TJ12P1 scramble (sequence: WLSHLGDLTWEA). Chemical formula: $C_{67}H_{94}N_{16}O_{19}$, Molecular weight: 1427.58 g/mol. **(E)** Mass Spec of WLSHLGDLTWEA, two ions were detected, those of [WLSHLGDLTWEA] $^{2+}$ (m/z 714.5) and [WLSHLGDLTWEA] $^{+}$ (m/z 1427.8). **(F)** Analytical HPLC chromatogram of WLSHLGDLTWEA. Retention time (t_R)=3.90 min using a binary H_2O/ACN mobile phase containing 0.05% TFA.