

Supplementary material

Oligonucleotide-Peptide Conjugates: Solid-Phase Synthesis in Acidic Conditions and Use in ELISA Assays

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Figure S1. Mass spectrum (electrospray, positive mode) of MBA-p18 peptide. $[M] = 1872.68$ (expected $M = 1873.08$). The experimental value of the mass is the average of the values obtained from M^{2+} (1872.52) and M^{3+} (1872.84)

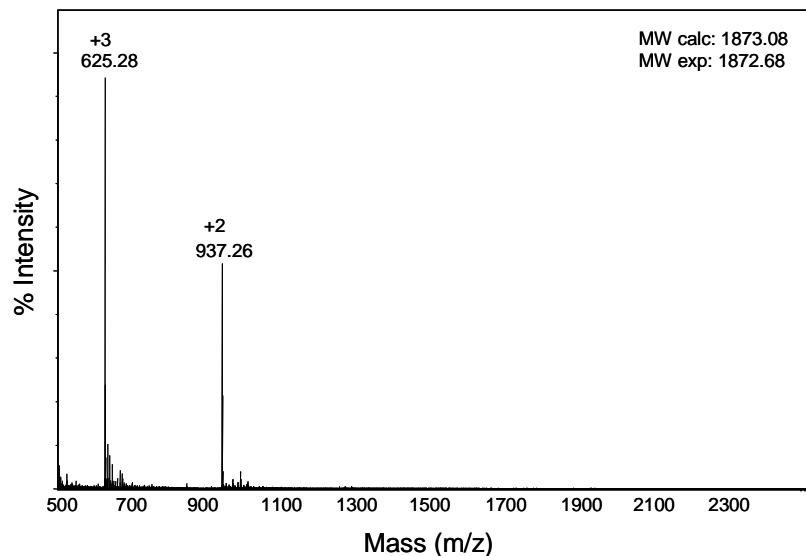


Figure S2. Mass spectrum (electrospray, positive mode) of MBA-CFFCP1 peptide. $[M] = 4334.76$ (expected $M = 4333.20$). The experimental value of the mass is the average of the values obtained from M^{8+} (4334.72), M^{7+} (4334.82), M^{6+} (4334.88) and M^{5+} (4334.65).

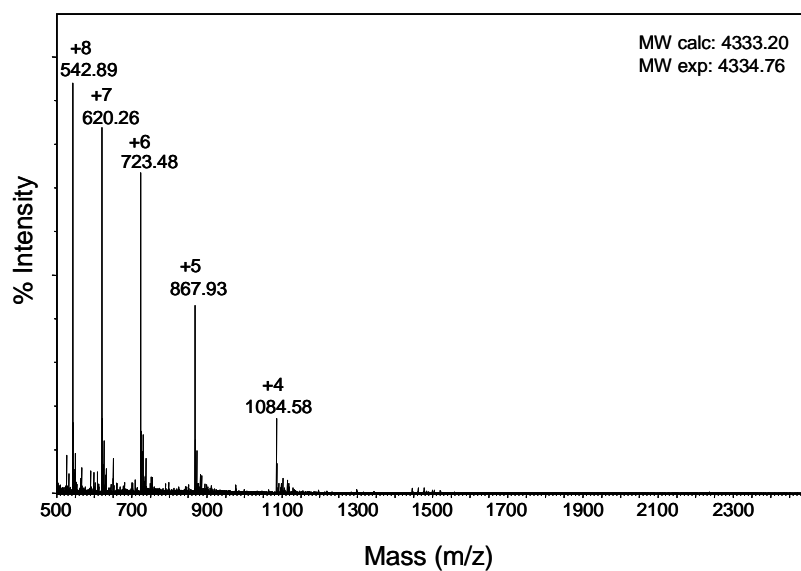


Figure S3. HPLC chromatogram of OPC-1. The desired conjugate eluted in two peaks (two isomers) at around 10.5 min. Initial T8-SH eluted around 9.5 min. Detection wavelength 260 nm.

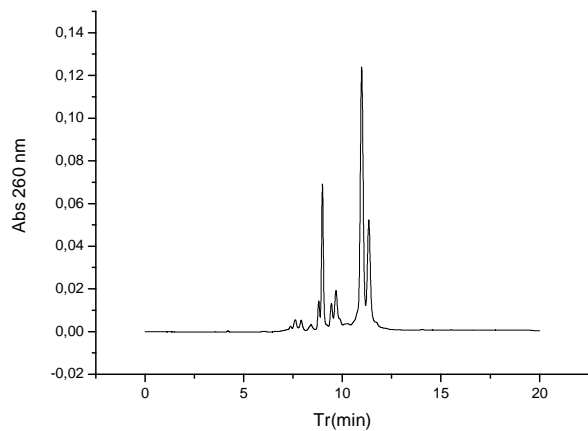


Figure S4. Mass spectrum (MALDI-TOF, negative mode) of OPC-1. $[M] = 4435$ (expected $M = 4438$).

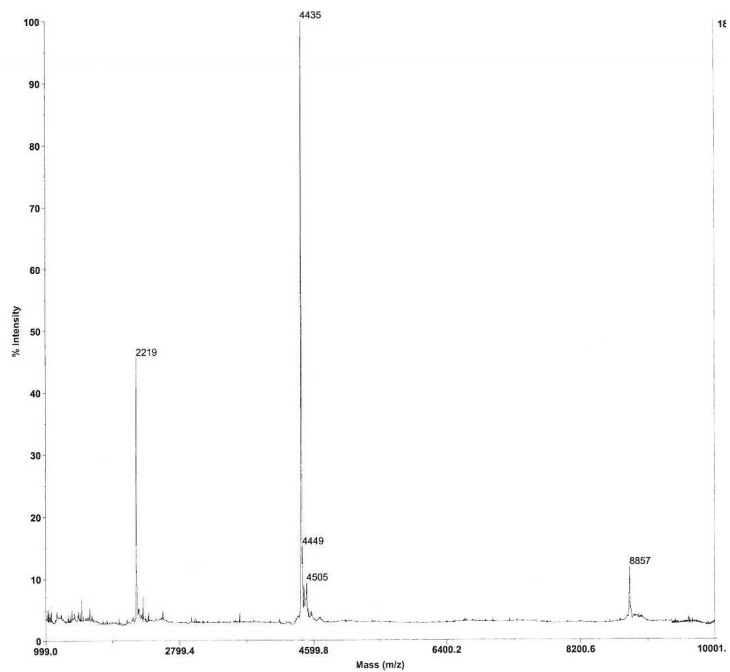


Figure S5. HPLC chromatogram of OPC-2. The desired conjugate eluted at around 14 min. Detection wavelength 260nm.

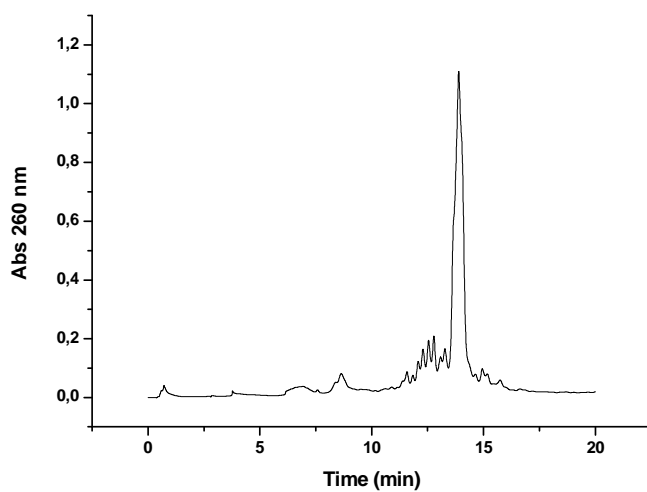


Figure S6. Mass spectrum (MALDI-TOF, negative mode) of OPC-2. [M] = 8208 (expected M= 8211).

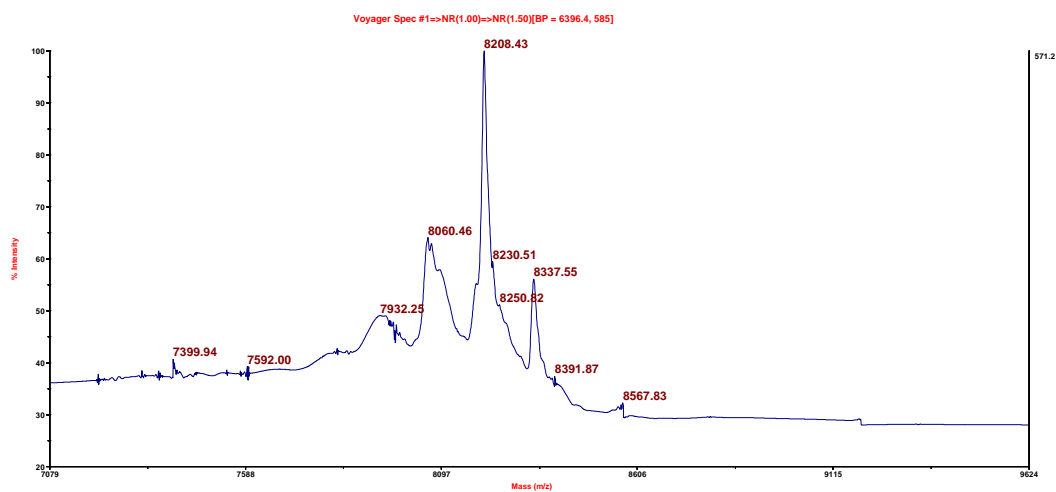


Figure S7. HPLC chromatogram of OPC-3. The desired conjugate eluted at around 26 min. Detection wavelength 260nm.

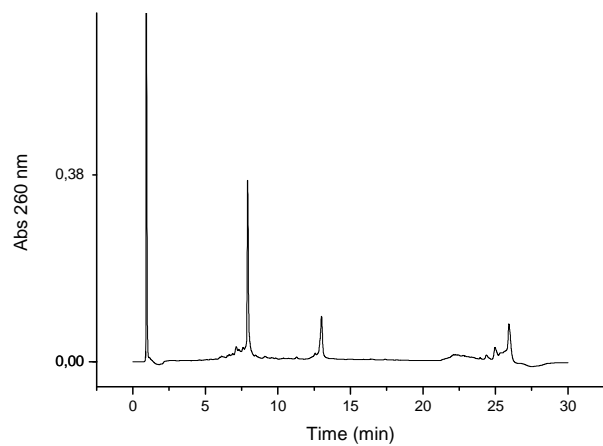


Figure S8. Mass spectrum (MALDI-TOF, negative mode) of OPC-3. [M] = 10677 (expected M= 10673).

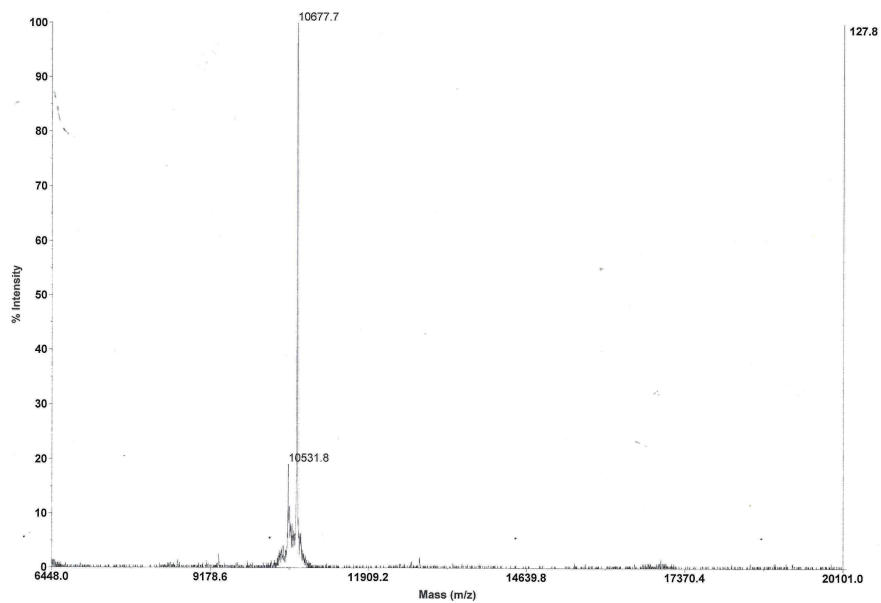


Figure S9. Mass spectrum (electrospray, positive mode) of CFFCP1 linear peptide. $[M] = 4141.20$ (expected $M = 4141.57$). The experimental value of the mass is the average of the values obtained from M^{5+} (4141.15), M^{6+} (4141.32), M^{7+} (4141.20) and M^{8+} (4141.28).

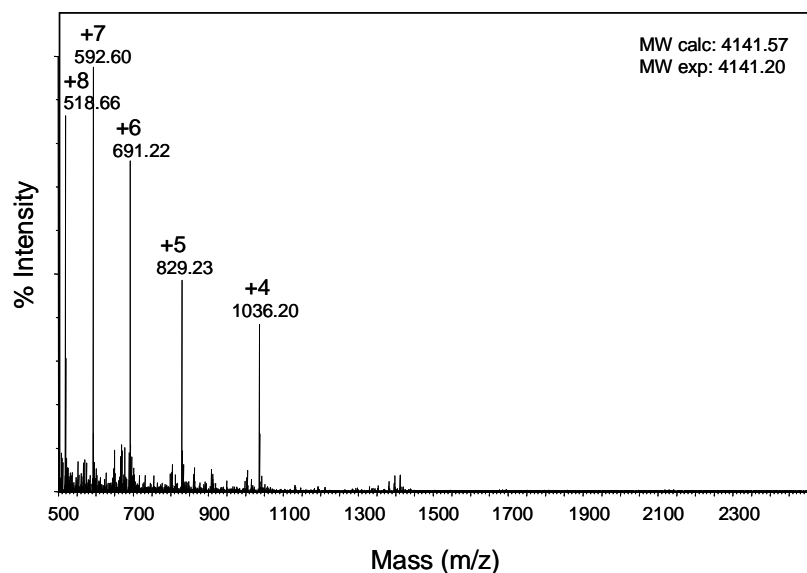


Figure S10. HPLC chromatogram of OPC-4. The desired conjugate eluted at around 12 min. A) deprotection protocol with TFA and then NH_3 and B) deprotection protocol with NH_3 and TFA. Detection wavelength 260 nm.

A)

B)

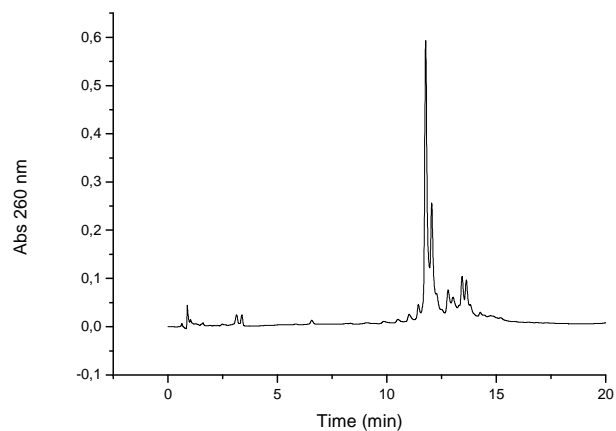
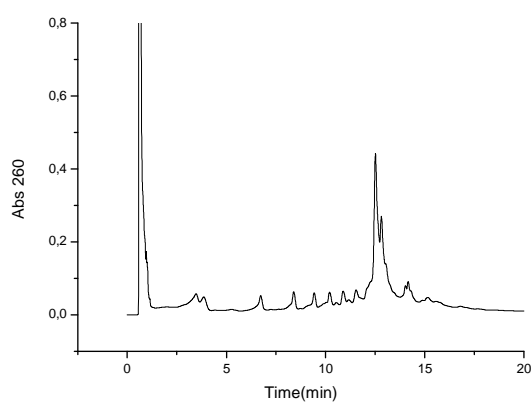


Figure S11. Mass spectrum (MALDI-TOF, negative mode) of OPC-4. $[M] = 6688$ (expected $M = 6687$).

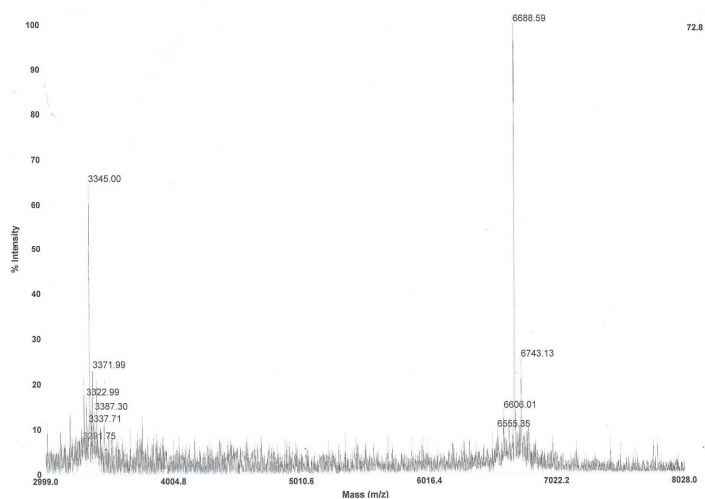


Figure S12. Mass spectrum (electrospray, positive mode) of CFFCP1 Ser peptide. $[M] = 3967.05$ (expected $M = 3966.28$). The experimental value of the mass is the average of the values obtained from M^{4+} (3967.32), M^{5+} (3967.0), M^{6+} (3966.9) and M^{7+} (3966.97).

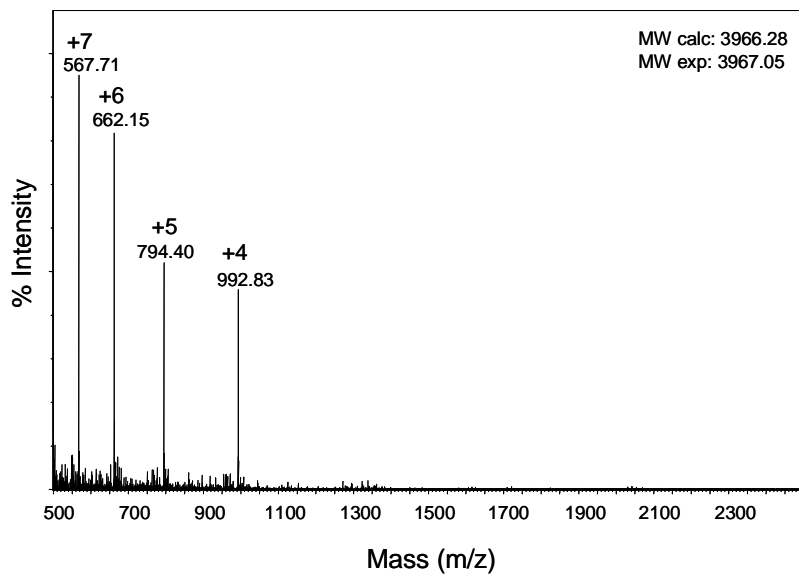


Figure S13. Mass spectrum (MALDI-TOF, negative mode) of OPC-5. [M] = 7820 (expected M= 7814).

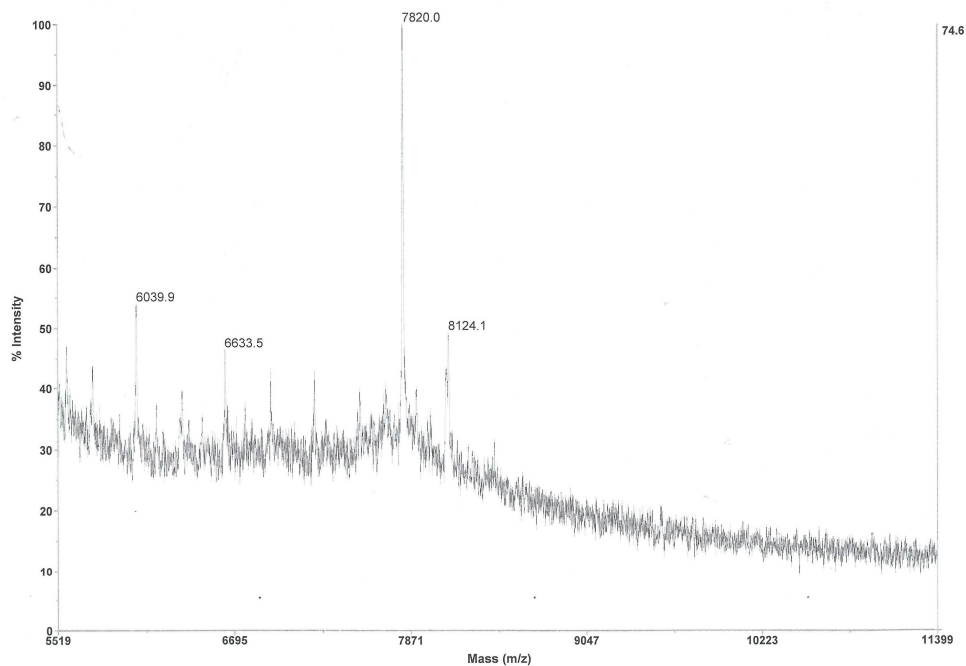


Figure S14. HPLC chromatogram of OPC-5. The desired conjugate eluted at around 7.9 min (main peak). Detection wavelength 260nm.

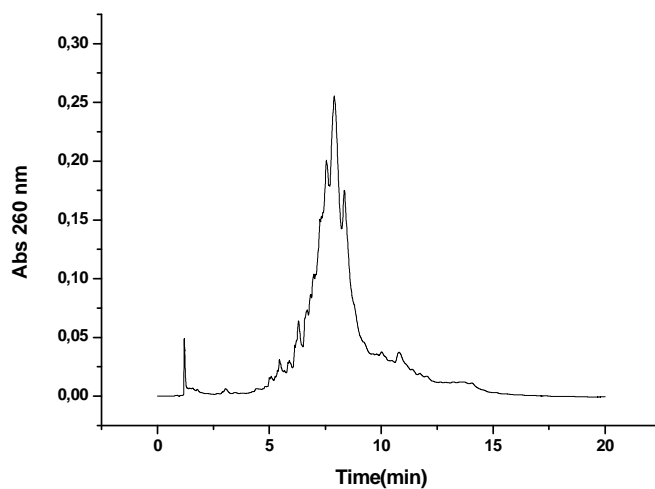


Figure S15. HPLC chromatogram of OPC-6. The desired conjugate eluted at around 11.8 min (main peak). Detection wavelength 260nm.

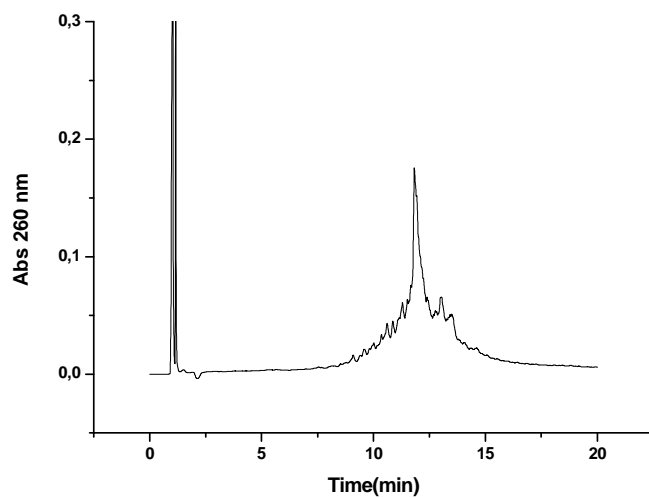


Figure S16. Mass spectrum (MALDI-TOF, negative mode) of OPC-7 (T_{12} cyclic). $[M] = 7765$ (expected $M = 7759$).

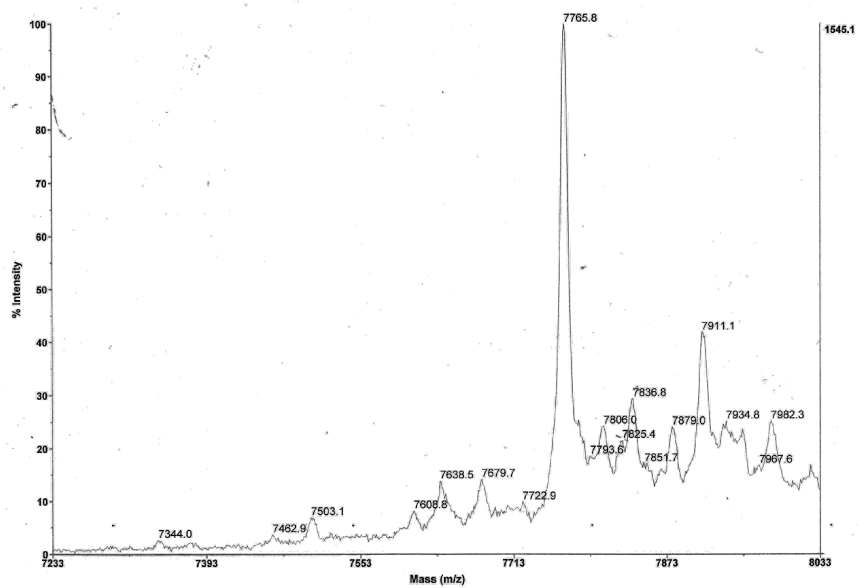


Figure S17. Mass spectrum (MALDI-TOF, negative mode) of OPC-8. [M] = 7686 (expected M= 7684).

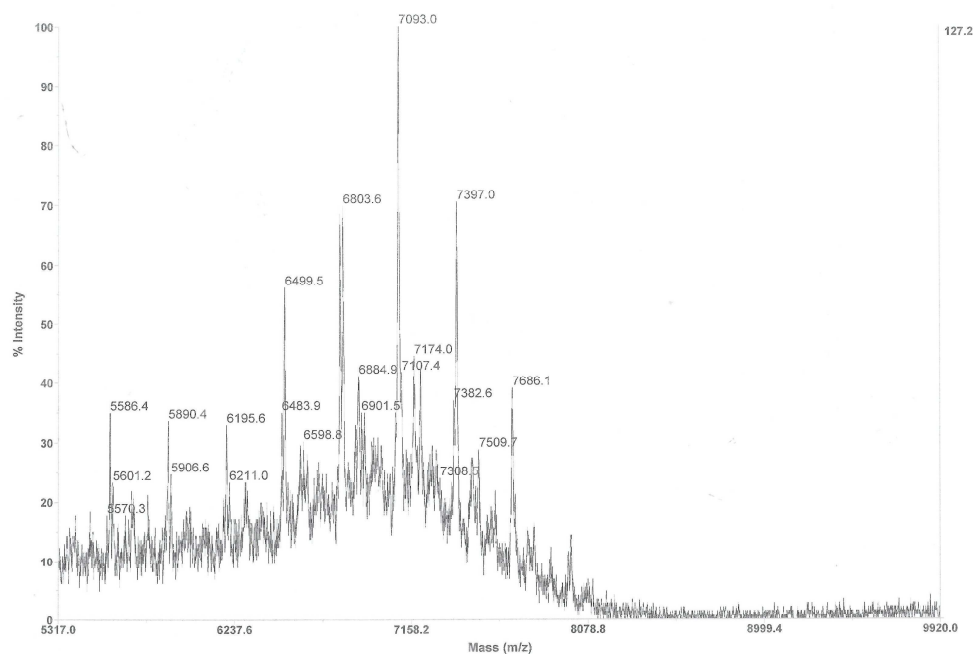


Figure S18. HPLC chromatogram of OPC-9. The desired conjugate eluted at around 12 min (main peak). Detection wavelength 260nm.

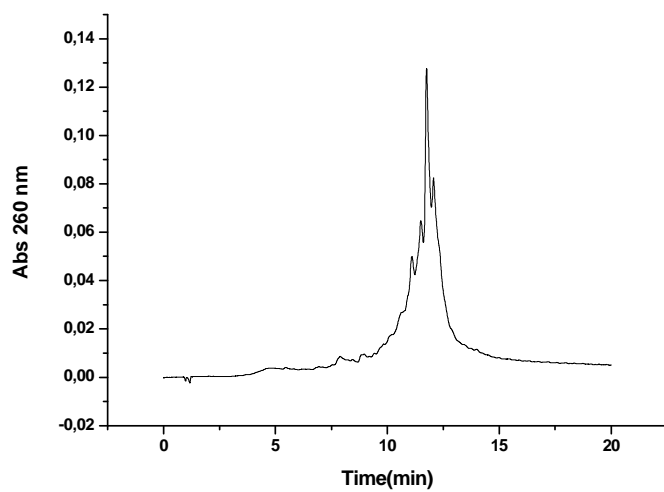


Figure S19. Mass spectrum (MALDI-TOF, negative mode) of OPC-9. [M] = 7914 (expected M= 7918).

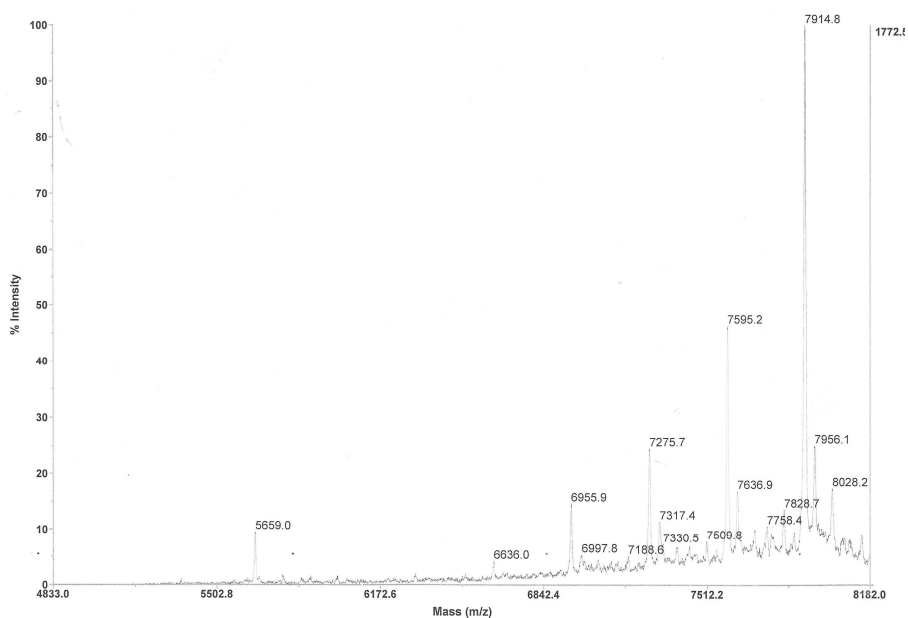


Figure S20. Analysis of the stability of oligonucleotide-peptide conjugates to TFA. The purified conjugate OPC-9 was treated with TFA / water (95:5 v/v) for 4 hr. The OPC was isolated by precipitation with cold diethyl ether and centrifugation. A) HPLC chromatogram of conjugate OPC-9 before the TFA treatment and B) HPLC chromatogram of conjugate OPC-9 after the TFA treatment. Detection wavelength 260 nm.

