Supporting Information

Intracellular delivery of a peptide nucleic acid-based hybrid of an autophagy inducing peptide with a cell-penetrating peptide

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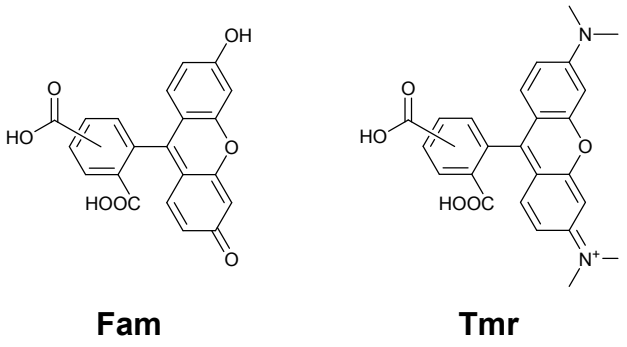

Fig. S1. Chemical structures of Fam and Tmr.

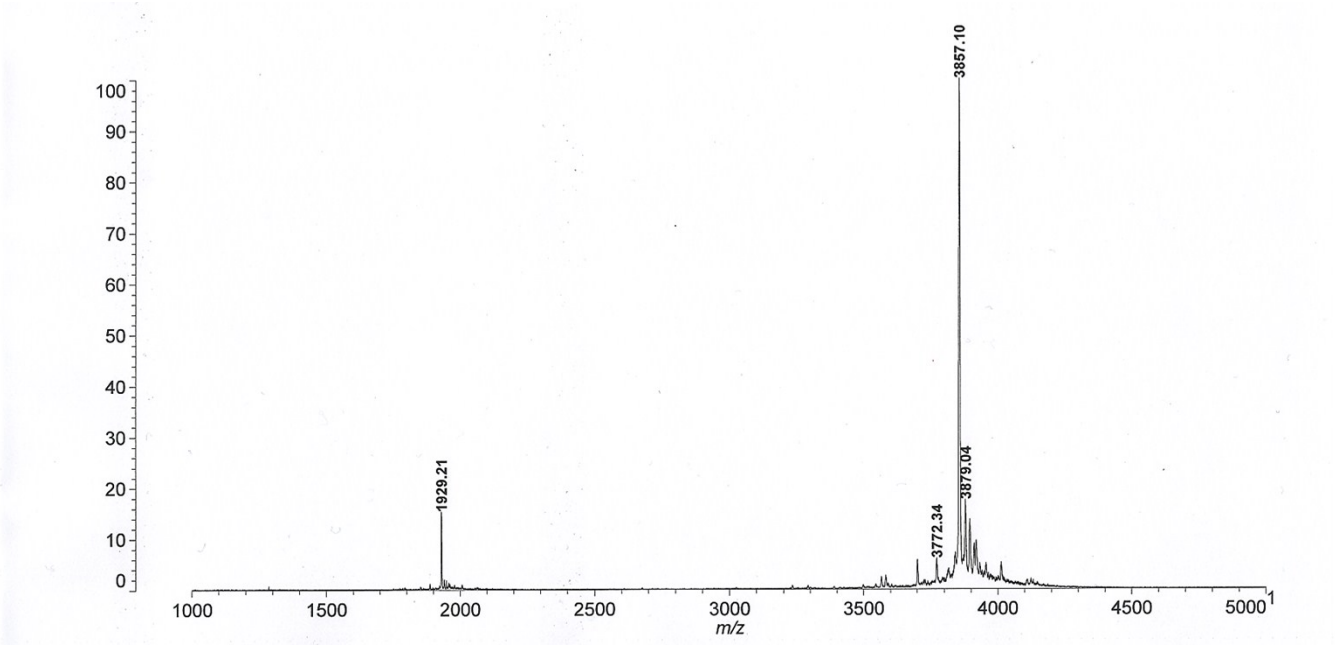

Fig. S2. MALDI-Tof Mass spectra of PNA1-CPP. An α-CHCA was used as a matrix. PNA1-CPP; calcd. $[M+H]^+$ = 3855.75 and obsd. $[M+H]^+$ = 3857.10.

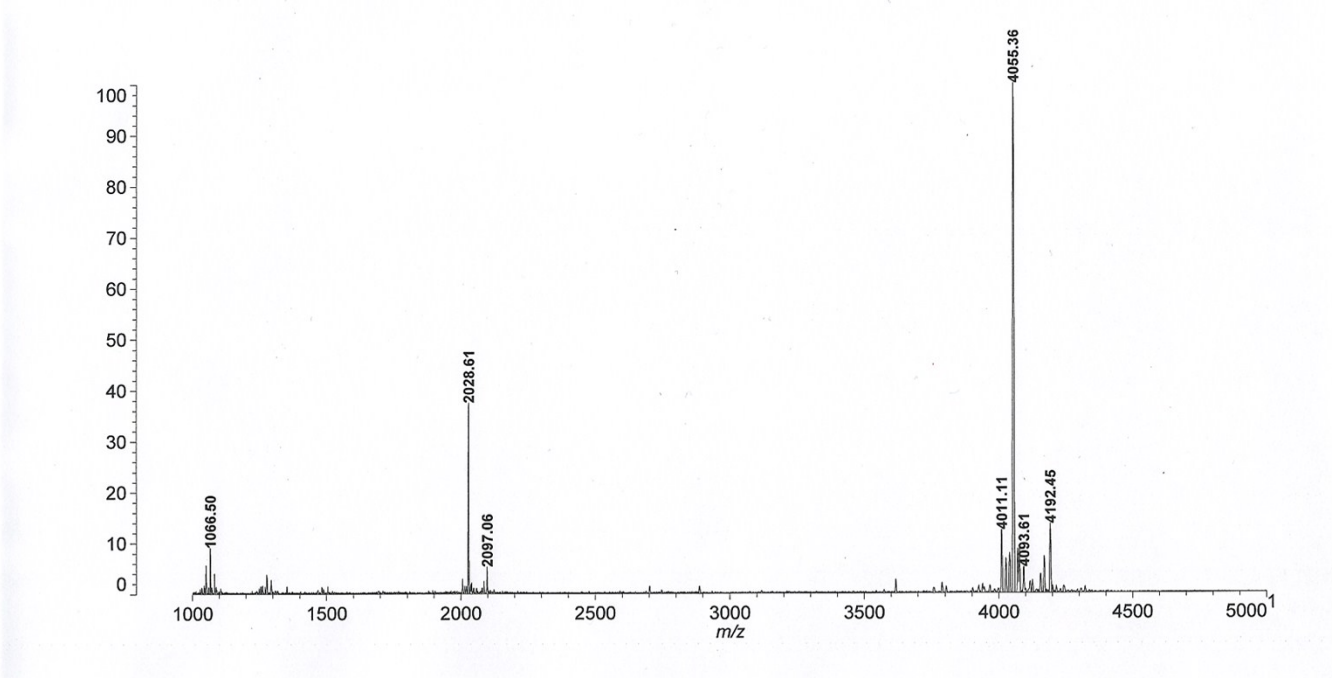

Fig. S3. MALDI-Tof Mass spectra of PNA2-AIP. An α-CHCA was used as a matrix. PNA2-AIP; calcd. $[M+H]^+$ = 4053.71 and obsd. $[M+H]^+$ = 4055.36.

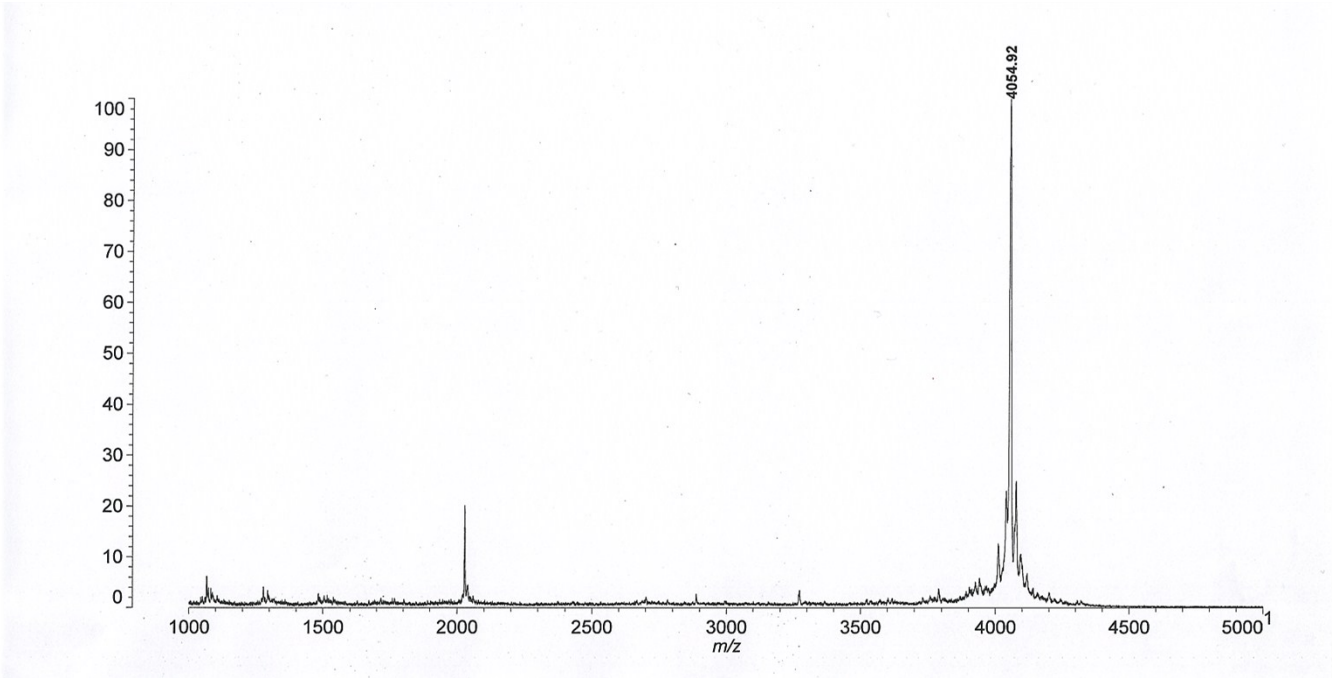

Fig. S4. MALDI-Tof Mass spectra of PNA3-AIP. An α-CHCA was used as a matrix. PNA3-AIP; calcd. $[M+H]^+$ = 4053.71 and obsd. $[M+H]^+$ = 4054.92.

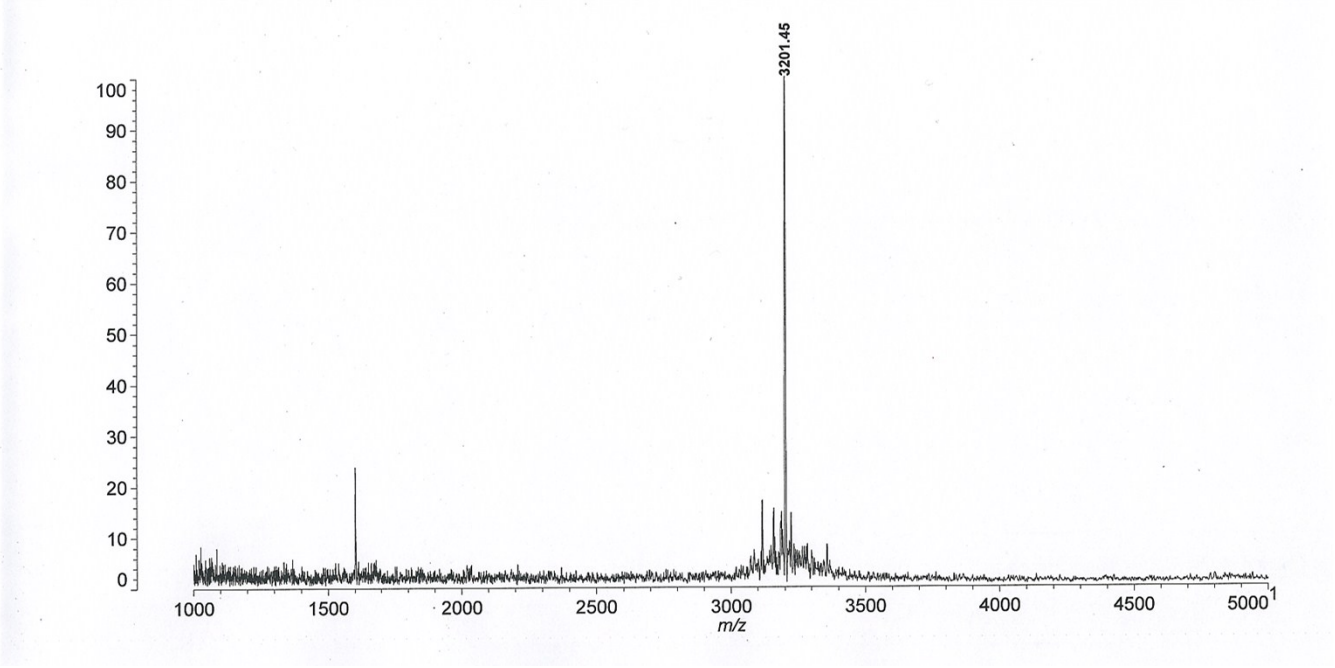

Fig. S5. MALDI-Tof Mass spectra of CPP-AIP. An α-CHCA was used as a matrix. CPP-AIP; calcd. $[M+H]^+$ = 3200.68 and obsd. $[M+H]^+$ = 3201.45.

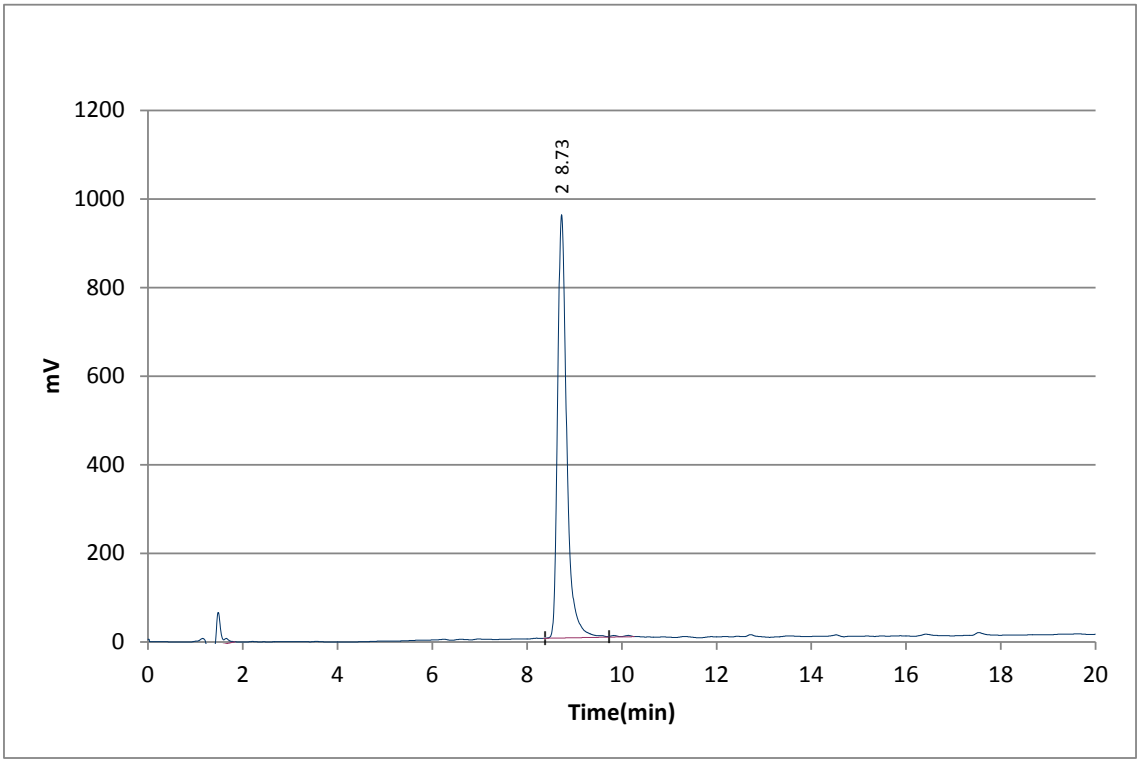

Fig. S6. RP-HPLC chart of PNA1-CPP on C18 column. Buffer A. 0.1% TFA in water; buffer B, acetonitrile and monitoring at 230 nm with a gradient of 10-80% for 20 min.

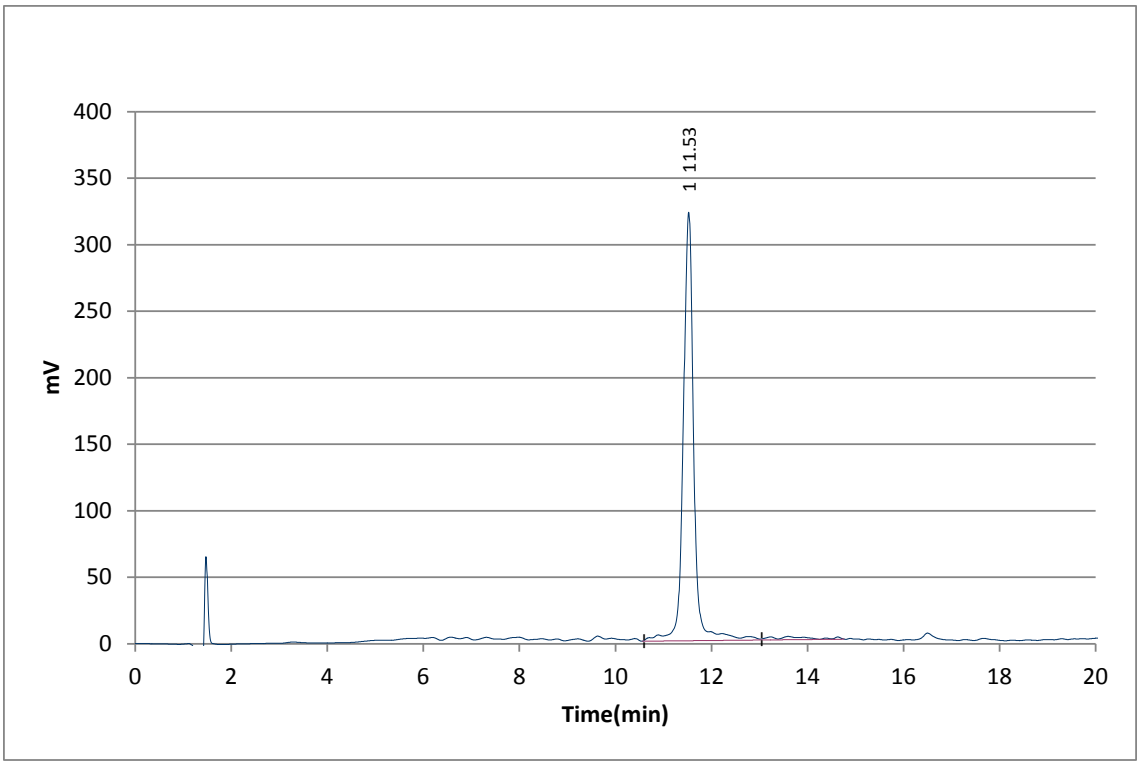

Fig. S7. RP-HPLC chart of PNA2-AIP on C18 column. Buffer A. 0.1% TFA in water; buffer B, acetonitrile and monitoring at 230 nm with a gradient of 10-80% for 20 min.

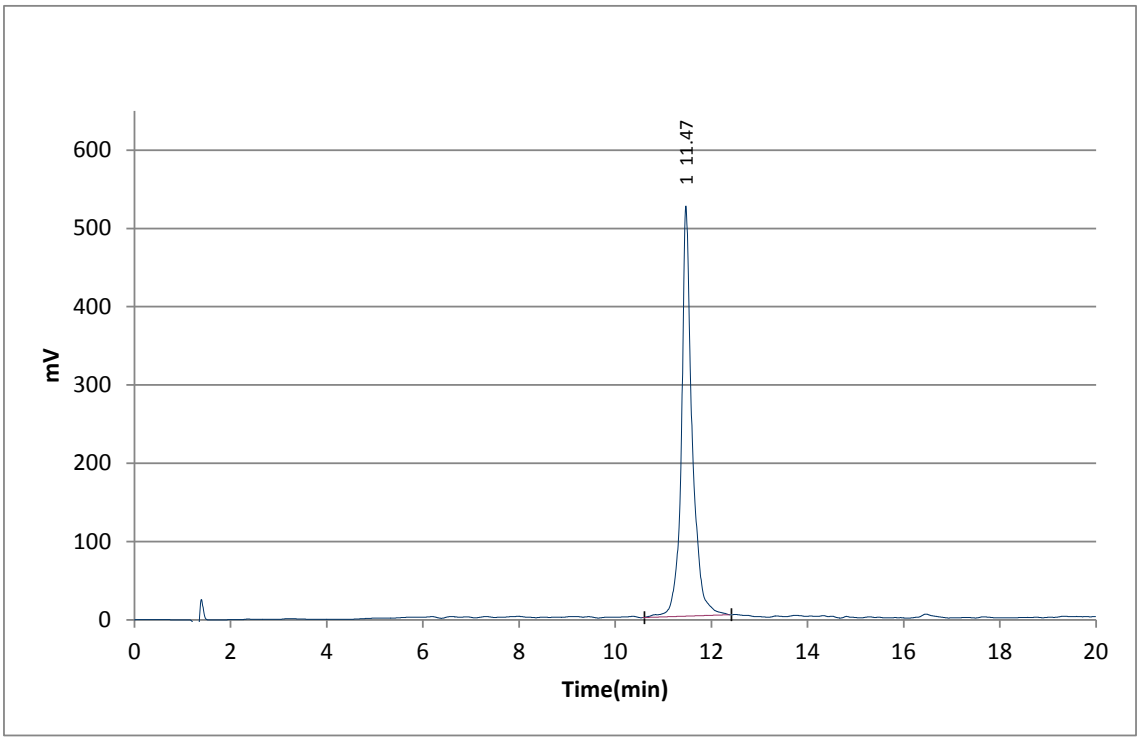

Fig. S8. RP-HPLC chart of PNA3-AIP on C18 column. Buffer A. 0.1% TFA in water; buffer B, acetonitrile and monitoring at 230 nm with a gradient of 10-80% for 20 min.

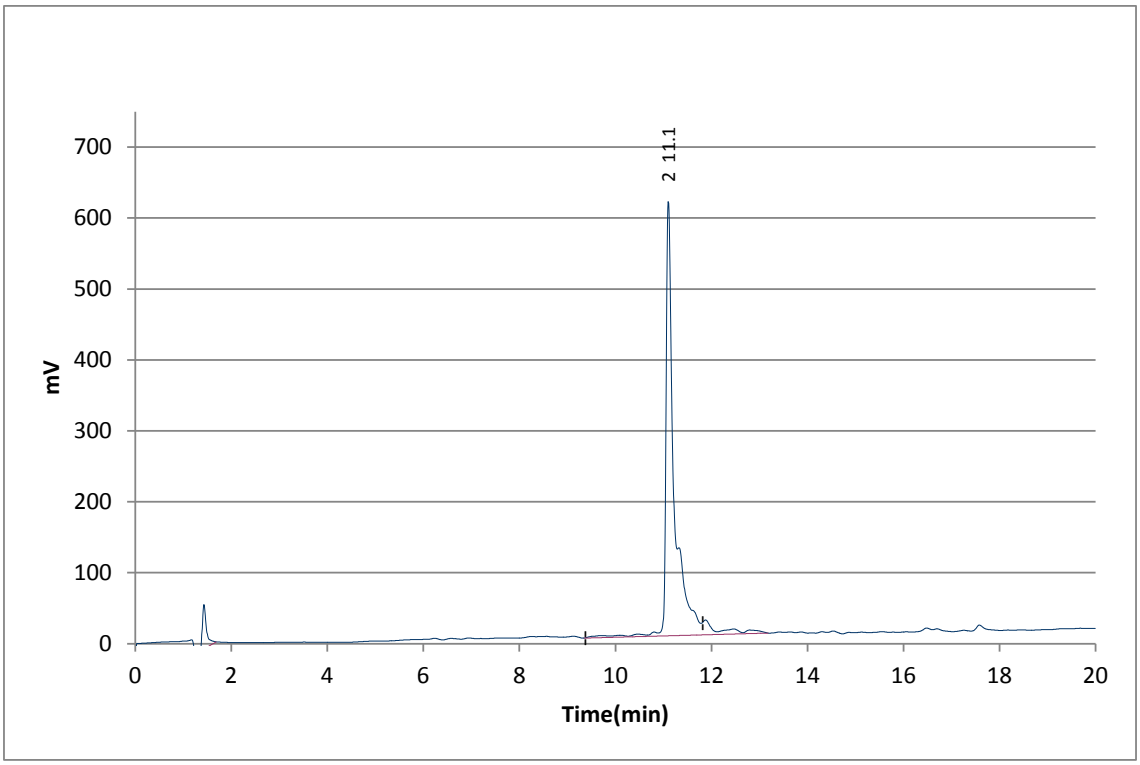

Fig. S9. RP-HPLC chart of CPP-AIP on C18 column. Buffer A. 0.1% TFA in water; buffer B, acetonitrile and monitoring at 230 nm with a gradient of 10-80% for 20 min.

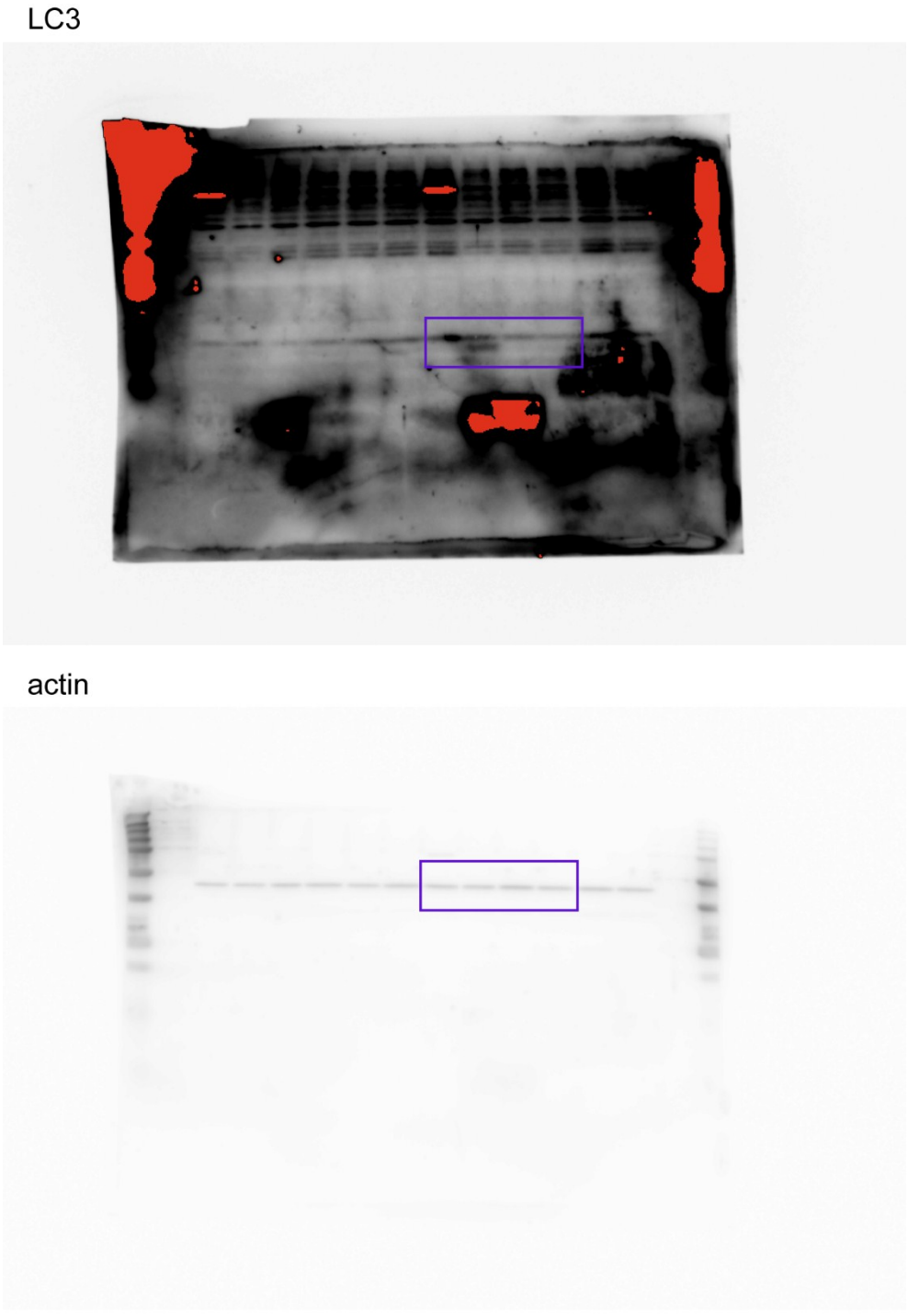

Fig. S10. Entire gel images of Fig. 5(a). Purple boxes are regions used in Fig. 5(a).

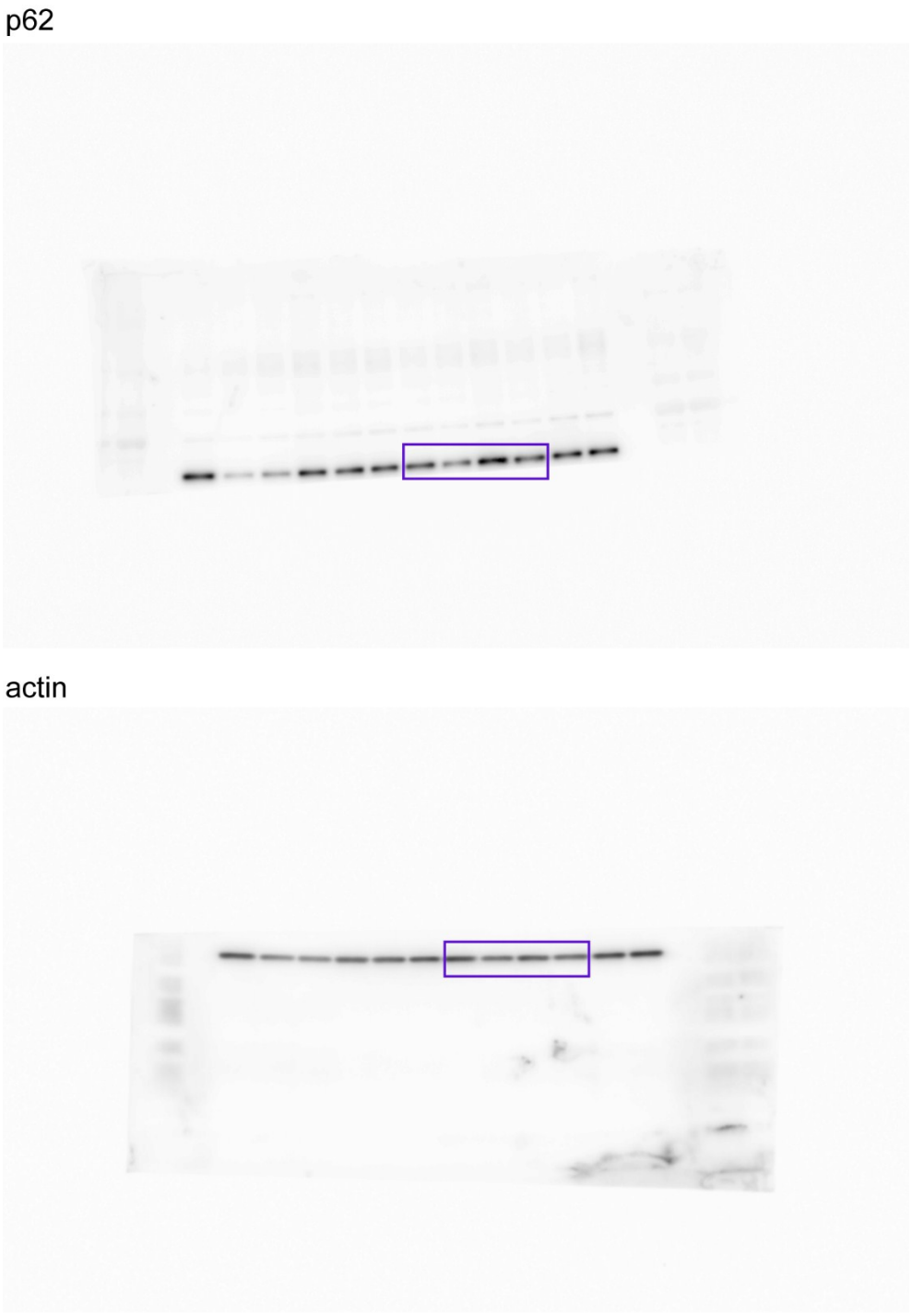

Fig. S11. Entire gel images of Fig. 5(b). Purple boxes are regions used in Fig 5(b).

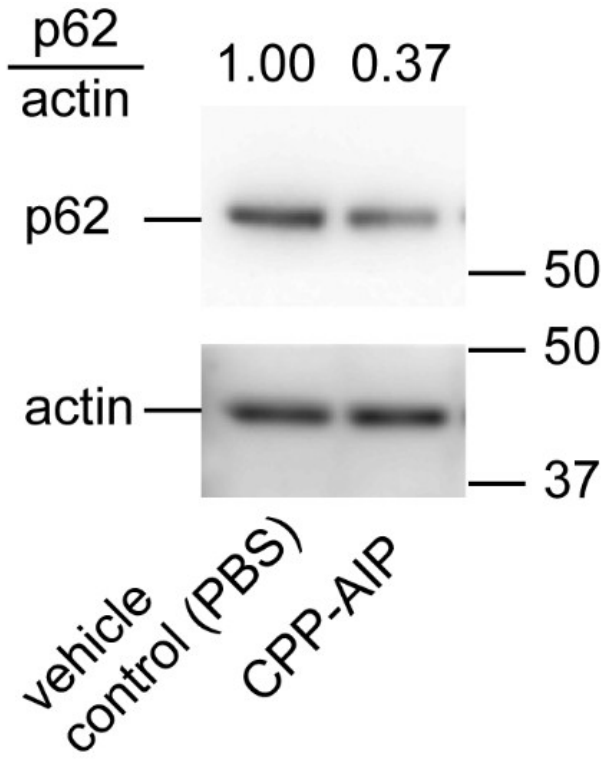

Fig. S12. Autophagy induction with 25 μM of CPP-AIP.

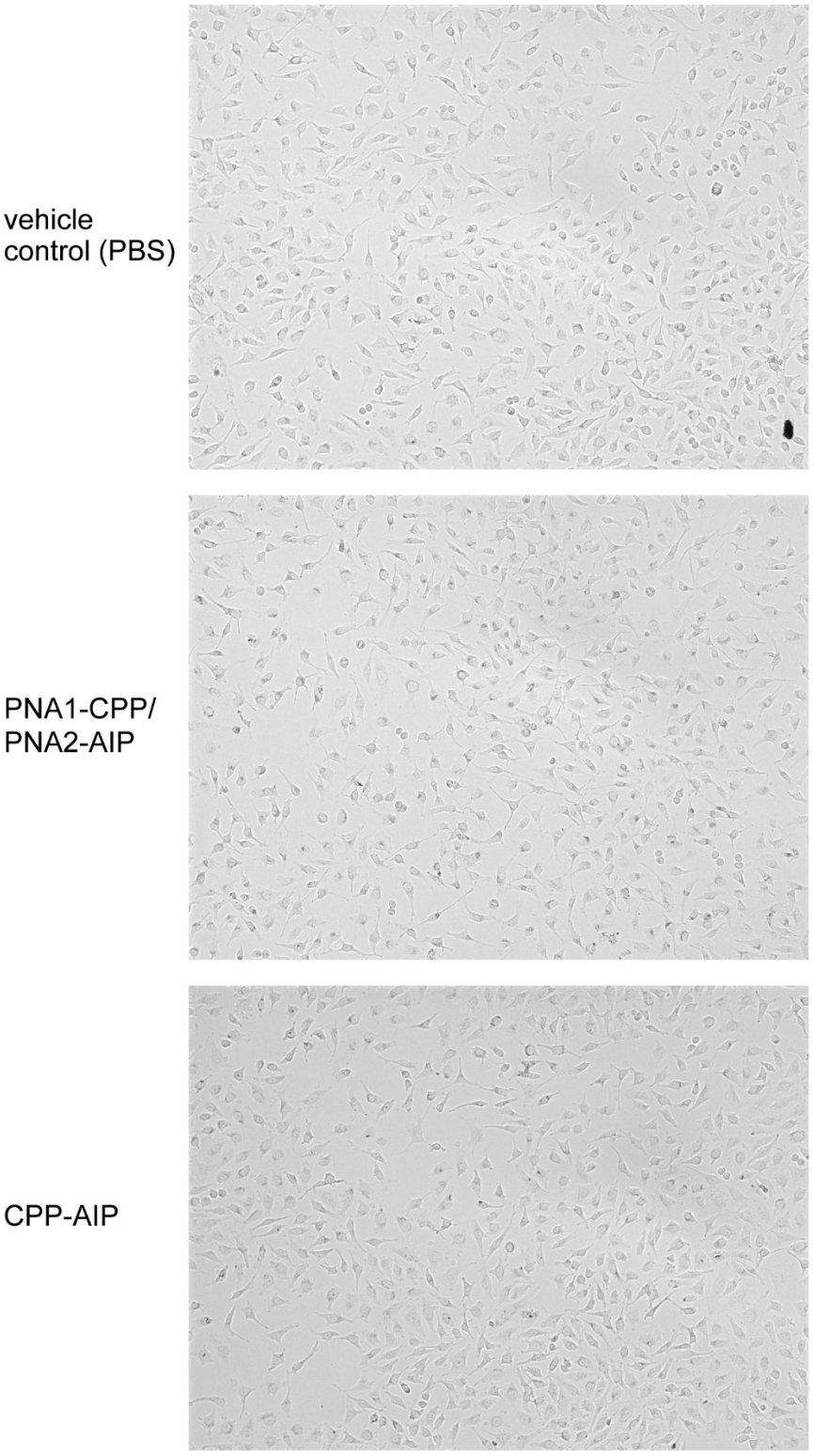

Fig. S13. Morphological features of cells after treatment with 7.5 μM of hybrid peptide or peptide.

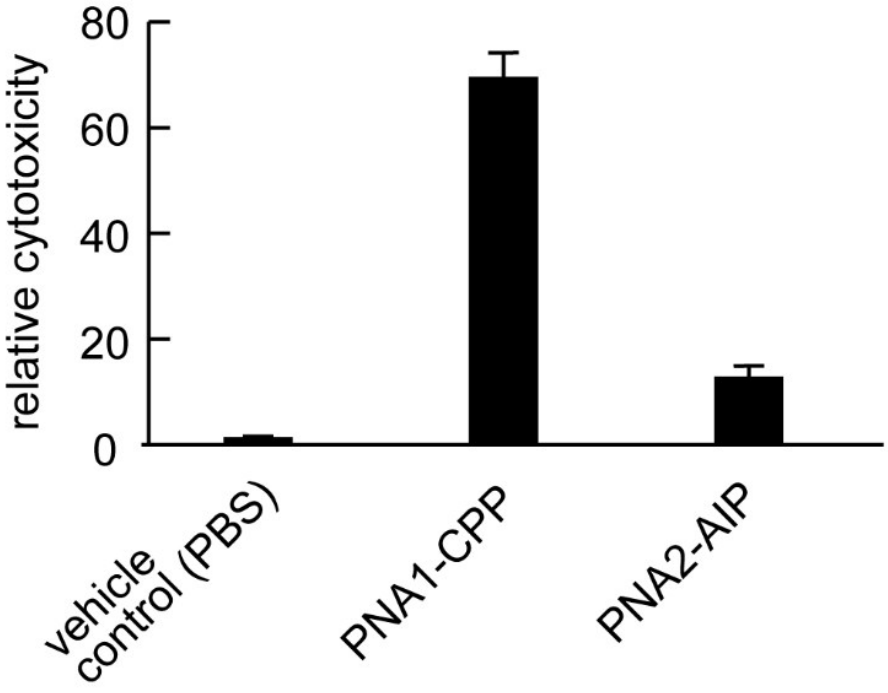

Fig. S14. Cytotoxicity by treatment with 25 μM of the peptides.