

## Supplementary Material

1 Supplementary Figures

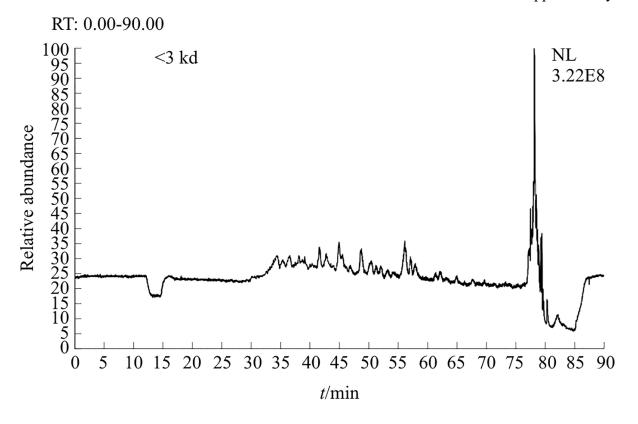
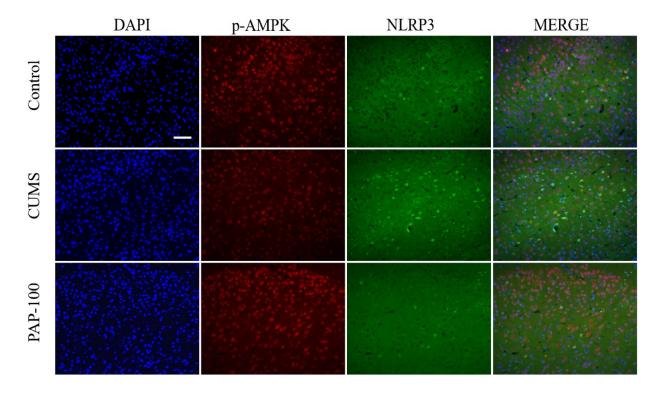
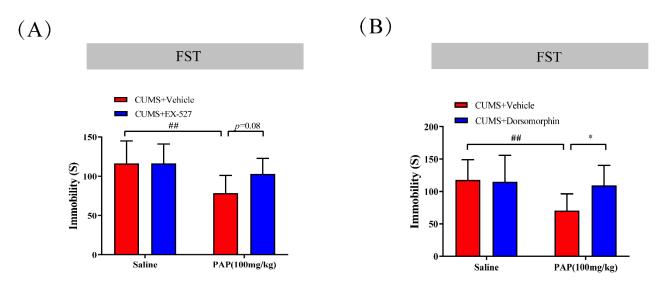


Fig. S1. TIC chromatograms of peptides in Pilose Antler by LC-LTQ/Orbitrap MS.



**Fig. S2.** Immunofluorescence staining of p-AMPK and NLRP3 in the hippocampus. Co-localization of p-AMPK and NLRP3 in the hippocampus of control, CUMS, and CUMS treated with 100 mg/kg PAP. Scale bar: 50μm.



**Fig. S3.** The effect of PAP in FST. (A) FST was measured in four groups: CUMS + Vehicle, CUMS + EX-527, CUMS + Vehicle + PAP (100mg/kg) and CUMS + EX-527 + PAP (100mg/kg). (B) FST was measured in four groups: CUMS + Vehicle, CUMS + Dorsomorphin, CUMS + Vehicle + PAP (100mg/kg) and CUMS + Dorsomorphin + PAP (100mg/kg).