

# **Supplementary Materials**

## **Feedback regulation between the ubiquitin proteasome system and protein kinase A worsens Huntington's disease**

Jiun-Tsai Lin, Wei-Cheng Chang, Hui-Mei Chen, Hsing-Lin Lai,  
Chih-Yeh Chen, Mi-Hua Tao and Yijuang Chern\*

## Figure S1

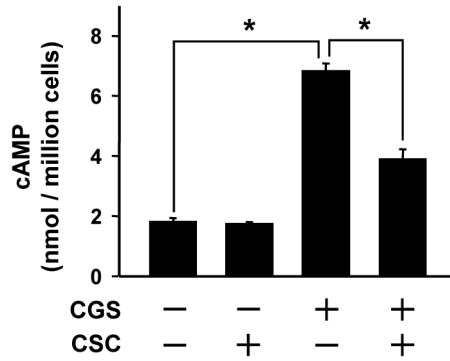


Fig. S1. **Treating ST14A cells with CGS elevated the cellular cAMP level.** ST14A cells were treated with the indicated reagent(s) (CGS, 10  $\mu$ M; CSC, 20  $\mu$ M) and a phosphodiesterase inhibitor (isobutylmethylxanthine (IBMX) 0.5 mM) for 20 min at room temperature, and then a cAMP assay was performed as described in "Methods". Data points represent the mean $\pm$ SEM of three independent experiments.

## Figure S2

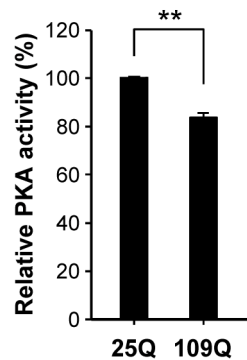


Fig. S2. **Mutant Huntingtin (Htt) downregulated protein kinase A (PKA) activity in ST14A cells.** ST14A cells were transfected with pcDNA3-(Htt-(Q)<sub>25</sub>-hrGFP) or pcDNA3-(Htt-(Q)<sub>109</sub>-hrGFP) for 72 h. The lysates collected from the indicated condition were used to determine the PKA activity. Data points represent the mean $\pm$ SEM of three independent experiments.

## Figure S3

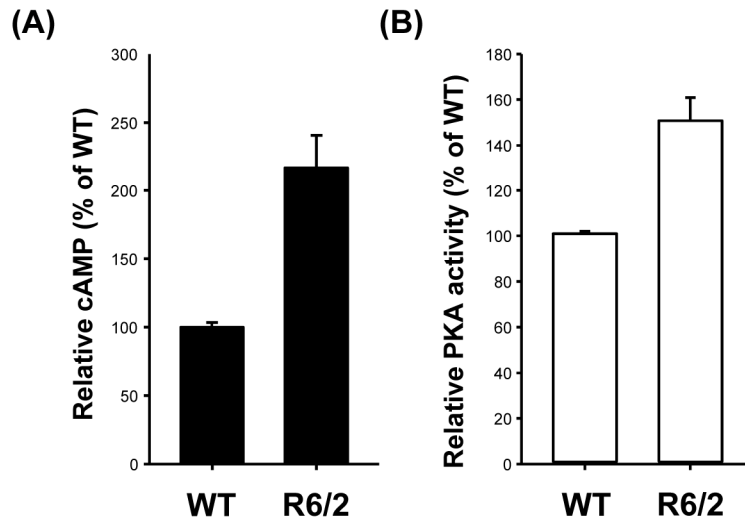


Fig. S3. **Mutant Huntingtin (Htt) increased cellular cAMP production and PKA activity in striatum of 7-week-old R6/2 mice.** The cAMP amount (A) and PKA activity (B) of the striatum of 7-week-old R6/2 mice and littermate controls were assessed as described in "Methods". Data are presented as the mean  $\pm$  SEM in each group.