

Supplementary Fig. 1 Food intake and water fluid intake of mice.

Three month-old male C57BL/6J mice were randomly assigned to three groups (n = 10/group): control group housed in 12/12 light-dark cycle, DD (Constant darkness) group kept in constant darkness, DD plus TP group housed in constant darkness and fed with 2 g/L tea polyphenols through drinking water for 8 weeks. (A) Food intake, (B) Fluid intake. Data are presented as the mean  $\pm$  SEM, n = 10. (##) p < 0.01, versus DD group.



Supplementary Fig. 2 Protective effects of tea polyphenols, EGCG, ECG, EGC, and gallic acid on H<sub>2</sub>O<sub>2</sub>-induced apoptosis.

SH-SY5Y neuronal cells were treated with H<sub>2</sub>O<sub>2</sub> (100  $\mu$ M) for 12 h with or without pretreatment of tea polyphenols (TP) (40  $\mu$ g/mL), epigallocatechin-3-gallate (EGCG) (17.24  $\mu$ g/mL), epicatechin-3-gallate (ECG) (15.78  $\mu$ g/mL), epigallocatechin (EGC) (3.38  $\mu$ g/mL), and gallic acid (Ga) (2.68  $\mu$ g/mL) for 12 h. The expressions of PARP and t-caspase-3 were detected by western blot. Values having different superscripts are significantly different, *p* < 0.05.