Figure S1

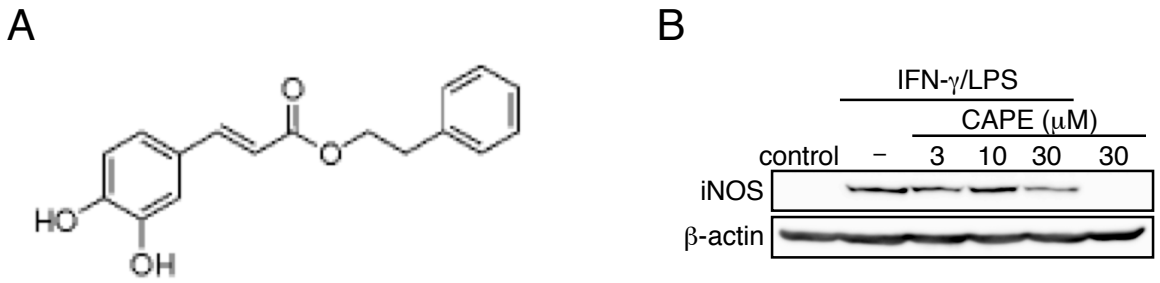

Figure S1. CAPE attenuates iNOS protein expression induced by IFN-γ/LPS. (A) Chemical structure of CAPE. (B) Effect of CAPE on IFN-γ/LPS-induced increase in iNOS protein expression. CAPE at indicated concentrations were concomitantly applied with 10 $\mu g \cdot ml^{-1}$ LPS for 12 h following 24 h treatment with 50 $ng \cdot ml^{-1}$ IFN-γ. Six slices were pooled as one sample for western blot analysis. Mouse anti-iNOS antibody (1:5,000, BD Transduction Laboratories, San Diego, CA, USA) and mouse anti-β-actin antibody (1:1,000, Sigma) were used as primary antibodies.

Figure S2

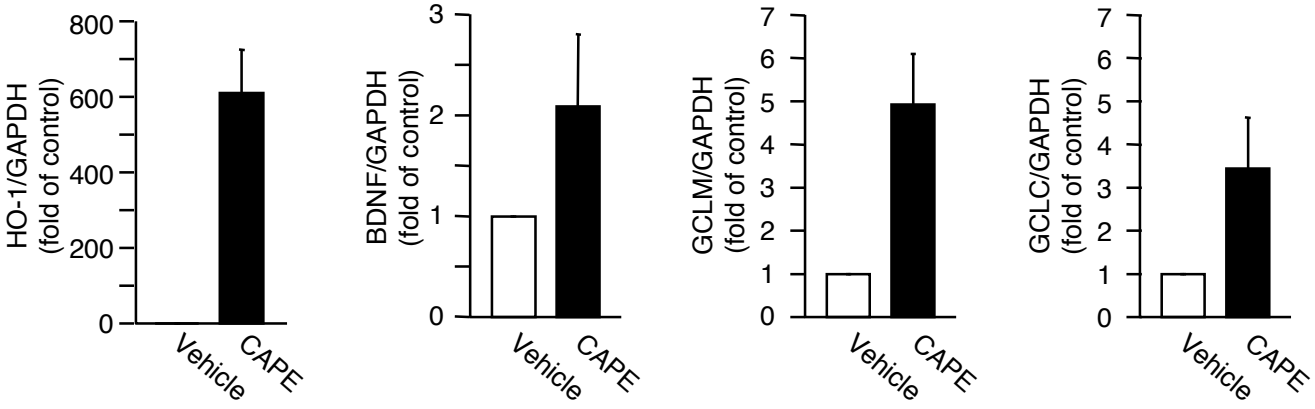

Figure S2. Results of real-time quantitative reverse transcription PCR analysis of the effect of CAPE on expression levels of mRNA for HO-1, BDNF, GCLM, and GCLC. Midbrain slice cultures were treated with 30 μM CAPE for 12 h. Six slices were pooled as one sample. $n = 3$. Real-time PCR was performed with SYBR® Premix Ex Taq™ (TaKaRa) on a Chromo4™ real-time PCR analysis system (Bio-Rad, Tokyo, Japan). Samples were run in duplicate. The thermal cycling program consisted of 95 °C for 3 min for polymerase activation, and then 40 cycles of denaturation (95 °C for 15 sec) and annealing and extension (60 °C for 1 min). Data were analyzed by the comparative C_t method. The primer sequences were:
HO-1 forward 5'-ACTTTCAGAAGGGTCAGGTGTCC-3',
HO-1 reverse 5'-TTGAGCAGGAAGGCGGTCTTAG-3',
BDNF forward 5'-CCCAACGAAGAAAACCATAAG-3',
BDNF reverse 5'-CCCACTCGCTAATACTGTCAC-3',
GCLM forward 5'-AATCAGCCCTGATTTGGTCAGG-3',
GCLM reverse 5'-CCAGCTGTGCAACTCCAAGGAC-3',
GCLC forward 5'-TTACCGAGGCTACGTGTCAGAC-3',
GCLC reverse 5'-TGTCGATGGTCAGGTCGATGTC-3',
GAPDH forward 5'-ACCATCTTCCAGGAGCGAGA-3',
GAPDH reverse 5'-CAGTCTTCTGGGTGGCAGTG-3'.

Figure S3

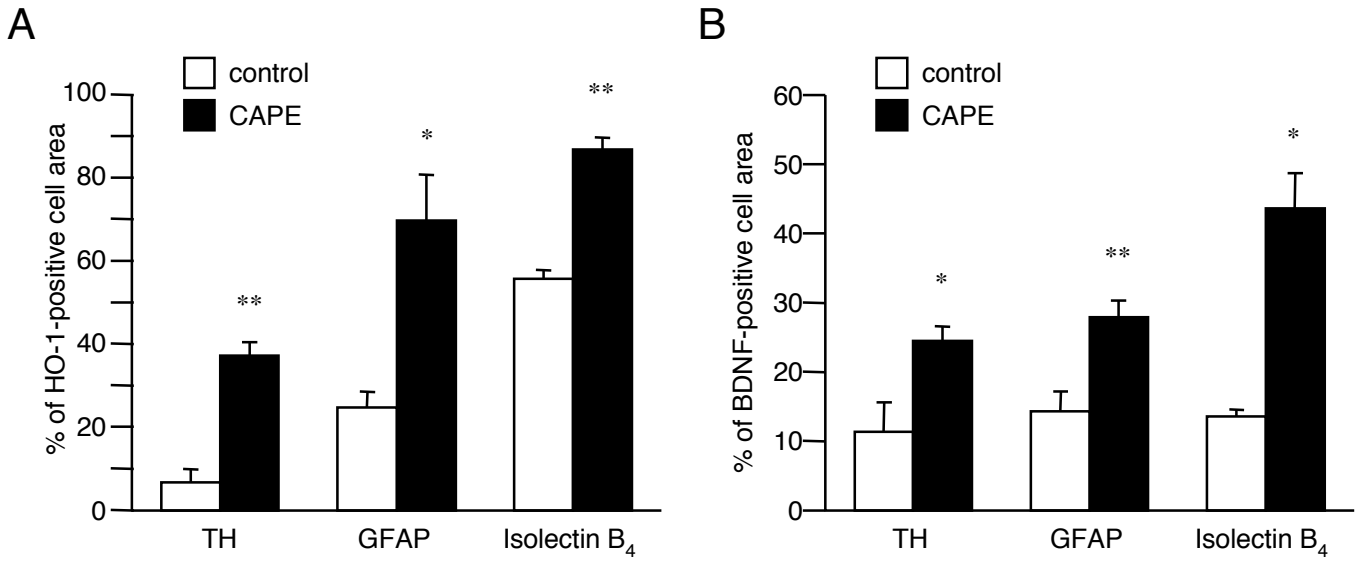

Figure S3. CAPE increases HO-1 and BDNF expression in distinct cell populations. Random fields of the substantia nigra in midbrain slices (as identified by TH staining) were chosen blindly, and images were collected in the combinations of specific cell markers with HO-1 or with BDNF. Three or four fields in individual slices were imaged, and doubly positive cell area (%) was quantified by ImageJ software. $n = 12$ for each treatment. $* p < 0.05$, $** p < 0.01$ vs. control by non-parametric Kruskal-Wallis test followed by Dunn's multiple range test.

Figure S4

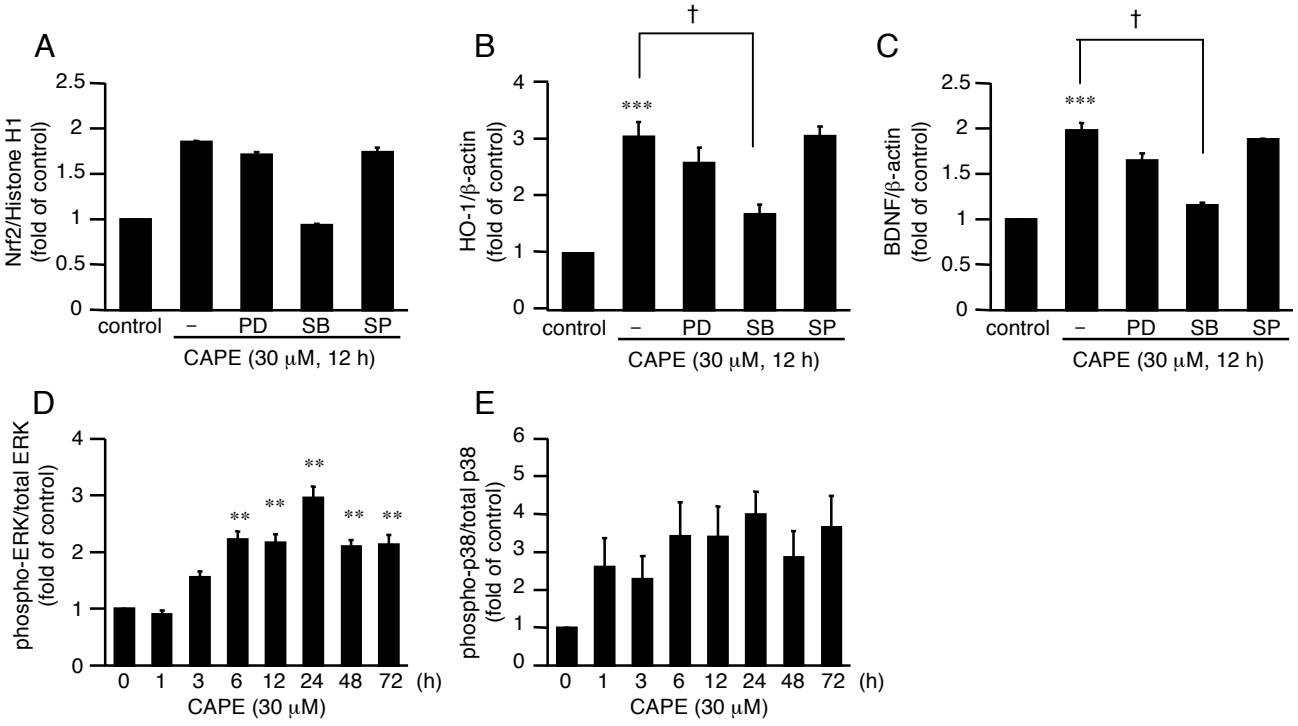

Figure S4. Results of quantification of band intensities in experiments shown in Figure 4A, 4B and 4G in the main text. (A-C) Effect of MAPK inhibitors on CAPE-induced nuclear translocation of Nrf2 (A) and expression of HO-1 (B) and BDNF (C). PD98059 (PD; 20 μM), SB203580 (SB; 50 μM) and SP600125 (SP; 10 μM) were applied concomitantly with 30 μM CAPE for 12 h. n = 5. *** $p < 0.001$ vs. control, † $p < 0.05$ by non-parametric Kruskal-Wallis test followed by Dunn's multiple range test. (D and E) Effect of CAPE on the phosphorylation levels of ERK1/2 and p38 MAPK. Midbrain slice cultures were treated with 30 μM CAPE for indicated periods. n = 5. ** $p < 0.01$ vs. 0 h by non-parametric Kruskal-Wallis test followed by Dunn's multiple range test.

Figure S5

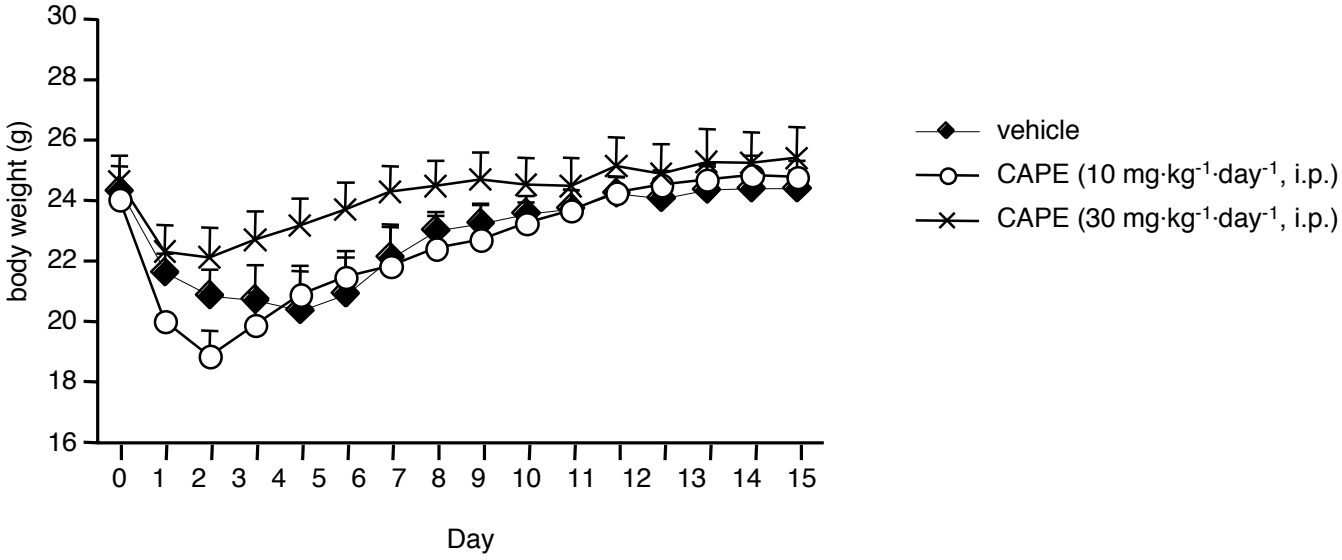

Figure S5. Changes in body weight of mice after intrastriatal injection of 6-OHDA with or without daily intraperitoneal administration of CAPE at indicated doses. $n = 5$ for each group.