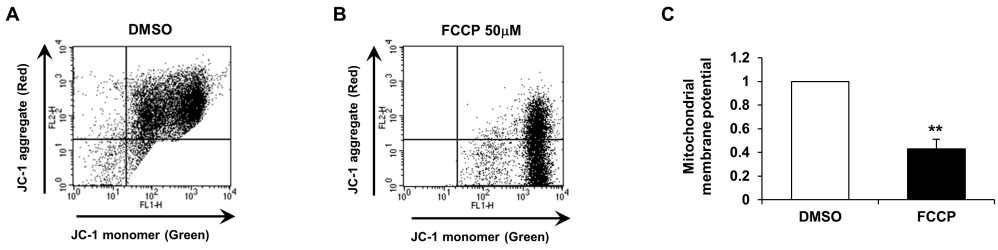

Figure S1. Analysis of mitochondrial membrane potential.

JC-1 staining was used to monitor mitochondrial membrane potential followed by flow cytometric analysis in ST*Hdh*$^{Q7/Q7}$ striatal cells in the presence of (A) DMSO or (B) 50 μM FCCP. (C) Quantification of JC-1 associated red/green fluorescent intensity ratio in ST*Hdh*$^{Q7/Q7}$ striatal cells. Data were derived from three independent experiments and presented as mean normalized units ± SEM. Paired Student's *t*-test was used for statistical analyses. Data showing significant differences compared with the control ($P < 0.01$) are labeled with asterisk (**).

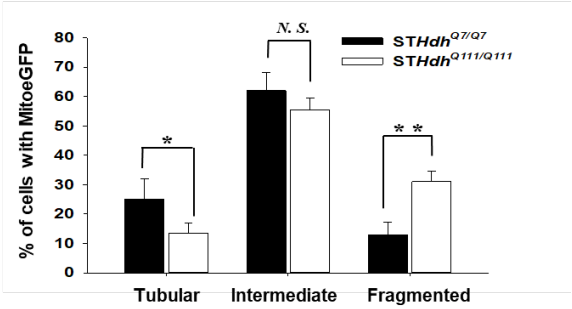

Figure S2. The percentage of fragmented mitochondria was increased in mutant HD striatal cells.

Quantification of percentage of the cells with different mitochondrial morphology in ST*Hdh*$^{Q7/Q7}$ and ST*Hdh*$^{Q111/Q111}$ striatal cells transfected with mito-eGFP plasmids. Results from three independent experiments were subjected to statistical analysis. Data are represented as mean ± SEM. Data showing significant differences with $P < 0.05$ are labeled with one asterisk (*); with $P < 0.01$ are labeled with two asterisks (**); N.S., no significance.

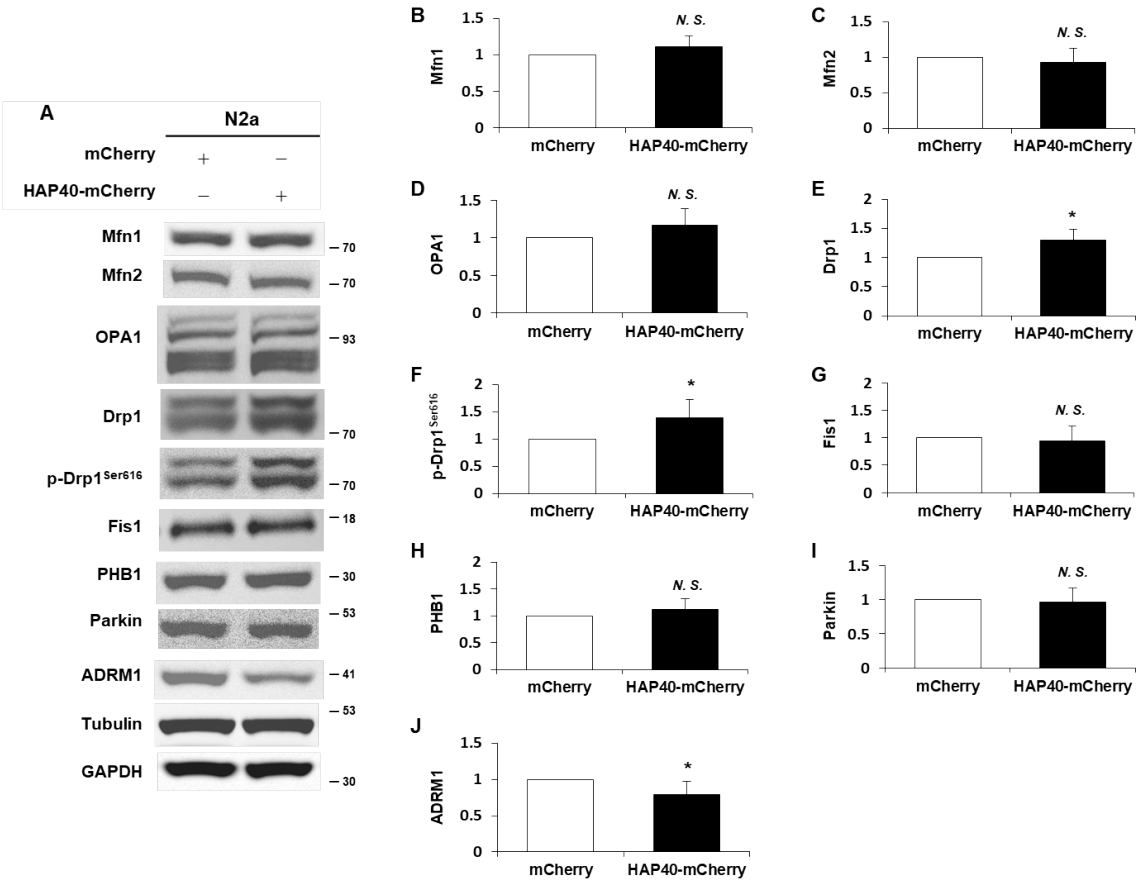

Figure S3. Overexpression of HAP40 increased the total and phosphorylated state of Drp1 protein in N2a cells.

(A) Immunoblot detection for Mfn1, Mfn2, OPA1, Drp1, p-Drp1^{Ser616}, Fis1, PHB1, Parkin, ADRM1, GAPDH, and tubulin in N2a cells transfected with the mCherry or HAP40-mCherry plasmid. (B-J) Quantification analyses on protein levels with the indicated protein normalized to the tubulin (B-H) or GAPDH (I-J). Data were derived from three independent experiments and presented as mean normalized units ± SEM. Data showing significant differences compared with the control ($P < 0.05$) are labeled with asterisk (*); N.S., no significance.

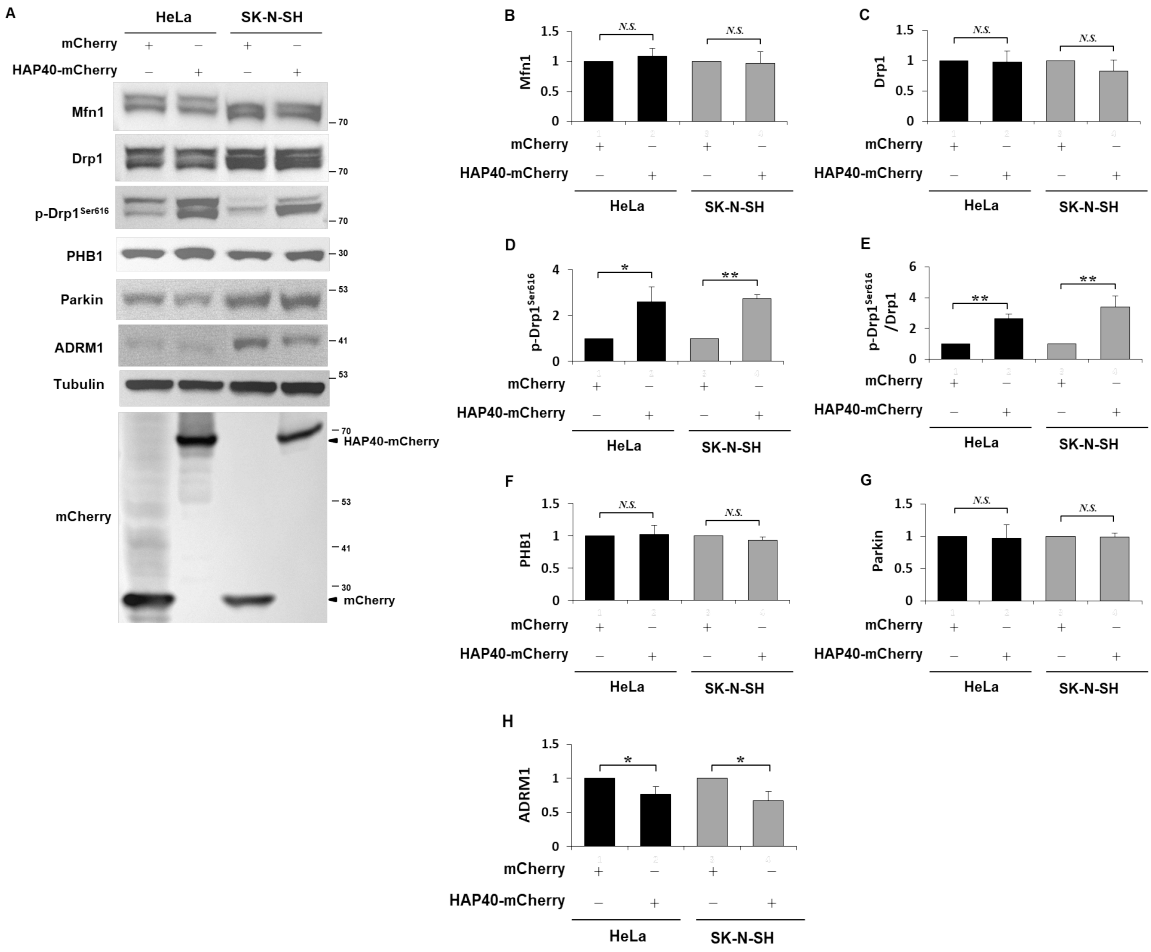

Figure S4. Overexpression of HAP40 increased the phosphorylated state of Drp1 and decreased ADRM1 protein in HeLa and SK-N-SH cells.

(A) Immunoblot detection for Mfn1, Drp1, p-Drp1^{Ser616}, PHB1, Parkin, ADRM1, mCherry and tubulin in HeLa and SK-N-SH cells transfected with the mCherry or HAP40-mCherry plasmid. (B-D and F-H) Quantification analyses on protein levels with the indicated protein normalized to the tubulin. (E) Quantification analyses on phosphorylated Drp1^{Ser616} normalized to total Drp1 protein in HeLa and SK-N-SH cells transfected with the indicated plasmids. Data were derived from three independent experiments and presented as mean normalized units ± SEM. Data showing significant differences compared with the control ($P < 0.05$) are labeled with asterisk (*); N.S., no significance.

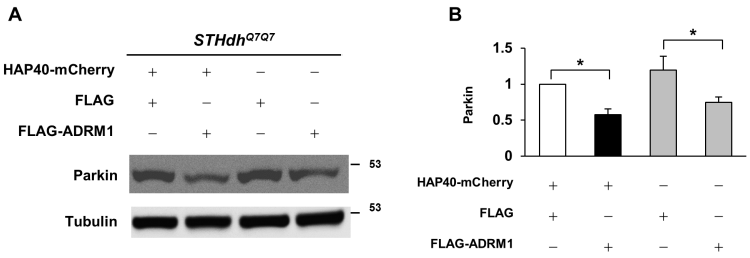

Figure S5. Overexpression of ADRM1 reduces the levels of Parkin in HAP40-expressing cells.

(A) Immunoblot detection for Parkin and tubulin in ST*Hdh*$^{Q7/Q7}$ striatal cells co-transfected with the HAP40-mCherry with FLAG or FLAG-ADRM1 plasmid and FLAG or FLAG-ADRM1 plasmid alone. (B) Quantification analyses on the indicated protein normalized to the tubulin in ST*Hdh*$^{Q7/Q7}$ striatal cells co-transfected with the indicated plasmids. Data are from three independent experiments and presented as mean normalized units ± SEM. Data showing significant differences compared to the control ($P < 0.05$) are labeled with asterisk (*).

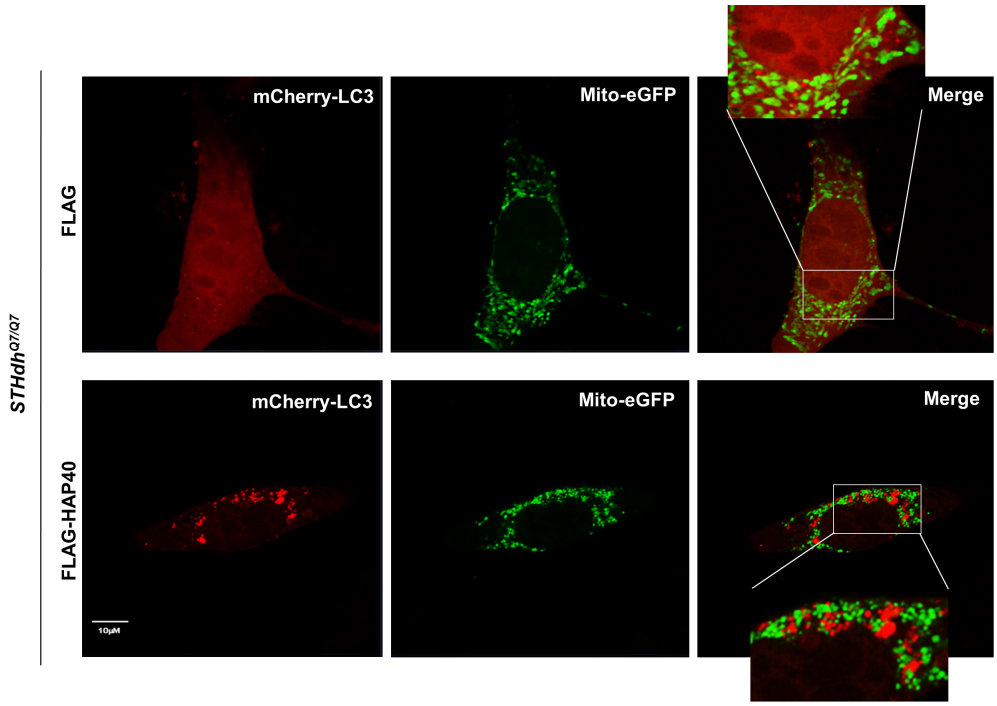

Figure S6. Mitochondria did not colocalize with autophagosome in HAP40 overexpressing cells.

ST*Hdh*$^{Q7/Q7}$ striatal cells expressing the mito-eGFP and mCherry-LC3 markers were monitored in cells overexpressing the FLAG-HAP40 or FLAG protein. Fluorescence imaging was captured with the Zeiss LSM710 confocal microscope.

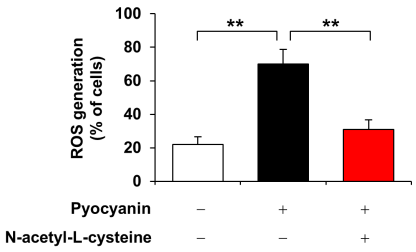

Figure S7. ROS generation in ST*Hdh*$^{Q7/Q7}$ striatal cells using flow cytometric analysis.

ROS levels of ST*Hdh*$^{Q7/Q7}$ striatal cells treated with Pyocyanin alone or with a combination of Pyocyanin and N-acetyl-L-cysteine were measured. Percentage of the cells with positive ROS signal was quantified in ST*Hdh*$^{Q7/Q7}$ striatal cells treated with the indicated reagents. Data were derived from three independent experiments and presented as mean normalized units ± SEM. Data showing significant differences with $P < 0.01$ are labeled with two asterisks (**).