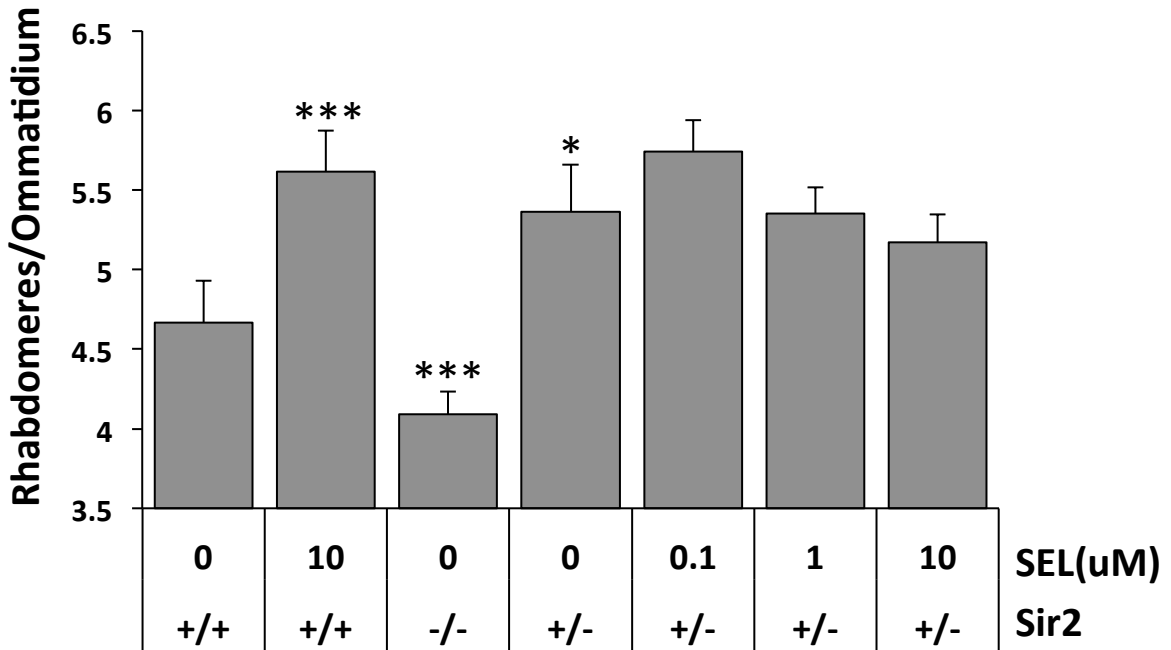
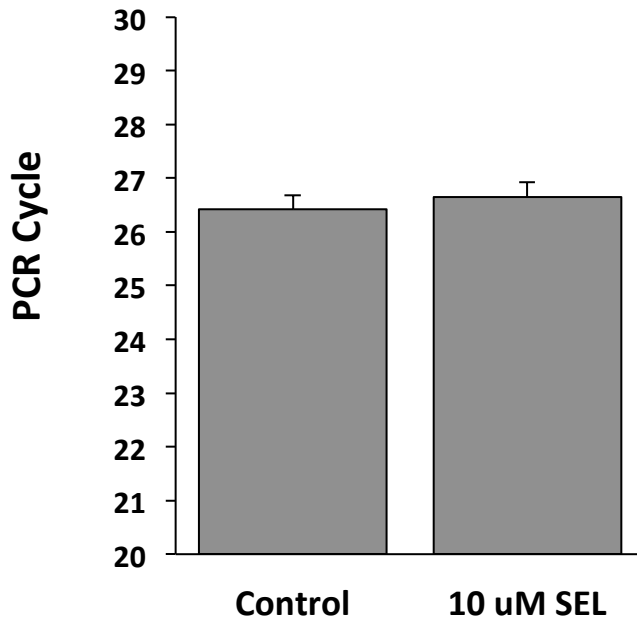


Supplemental Figure S1



Supplementary Figure S1. The level of Sir2 is critical for rescue of neurodegeneration in *Drosophila*. Selisistat treatment of HD animals that have only one copy of Sir2 shows that the level of Sir2 is critical for rescue of neurodegeneration. As the concentration of selisistat increases in the Sir2 heterozygote, rescue of neurodegeneration decreases. (***) $p < 0.005$, * $p < 0.05$ compared to first column)

Supplemental Figure S2



Supplementary Figure S2. Pharmacological modulation of Sir2 does not affect mutant HTT transgene expression in vivo in *Drosophila*. Fly heads from both untreated and selisistat treated flies were harvested, RNA was extracted and qRT-PCR performed to monitor the levels of mHtt transgene expression. In animals treated with selisistat, transgene mRNA levels of mHtt are not altered. Quantitative RT-PCR: Total RNA was extracted from heads or whole animals using TRIzol reagent (Invitrogen, Carlsbad, CA, USA) following the manufacturer's recommendations. Reverse transcriptase reactions were performed using the SuperScript III kit (Invitrogen) with random hexamer primers and the PCR was performed using the SYBRGreen reagent (Applied Biosystems, Foster City, CA, USA) in a DNA engine Opticon real-time PCR machine (MJ research/Bio-Rad, Hercules, CA, USA). All samples were run in at least triplicate (three independent RNA extractions). Primers were designed to overlap an intron to prevent amplification of genomic DNA.