

Figure S1. Comparison of female double knockout mice supplemented with Se until P22 (FDKOSe)-NoSeP22 rotarod performance to male double knockout mice supplemented with Se (MDKOSe) and FDKOSe-NoSeP37 mice. **(A)** SeH₂O (supplemental Se water) removal from FDKOSe mice reduces rotarod performance to a level comparable to MDKOSe mice. **(B)** Comparison of FDKOSe mice with SeH₂O removed at P22 and P37 according to the number of weeks post-SeH₂O removal (x-axis). Grey shading shows timepoints at which data was available for both groups. These data were compared via two-way ANOVA: Interaction $F_{(3,35)} = 2.97$ $p < 0.05$, Time of SeH₂O removal $F_{(1,35)} = 1.085$ $p < 0.0001$, Weeks NS; FDKOSe-NoSeP37 $n = 4$, and FDKOSe-NoSeP22 $n = 6$. Bonferroni's multiple comparisons test: **** $p < 0.0001$ at 4 weeks post SeH₂O removal. C57/BL6 mice aged P70 were used. All values reported as Mean \pm SEM.

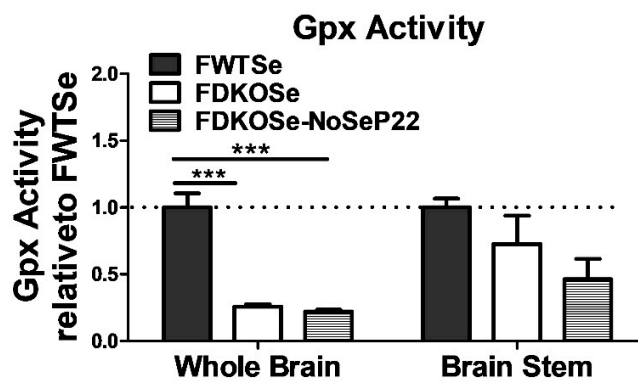


Figure S2. Effect of SeH₂O (supplemental Se water) withdrawal on glutathione peroxidase (Gpx) activity in female double knockout mice supplemented with Se (FDKOSe). Gpx activity in whole brain and brain stem relative to female wild-type mice supplemented with Se (FWTSe) values. One-way ANOVA: Whole Brain $p < 0.0001$; Brain Stem NS $p = 0.0820$; Bonferroni's multiple comparisons test: *** $p < 0.0005$, $n = 3$ to 4 in triplicates. Female C57/BL6 mice aged P70 were used. Data presented as mean \pm SEM.