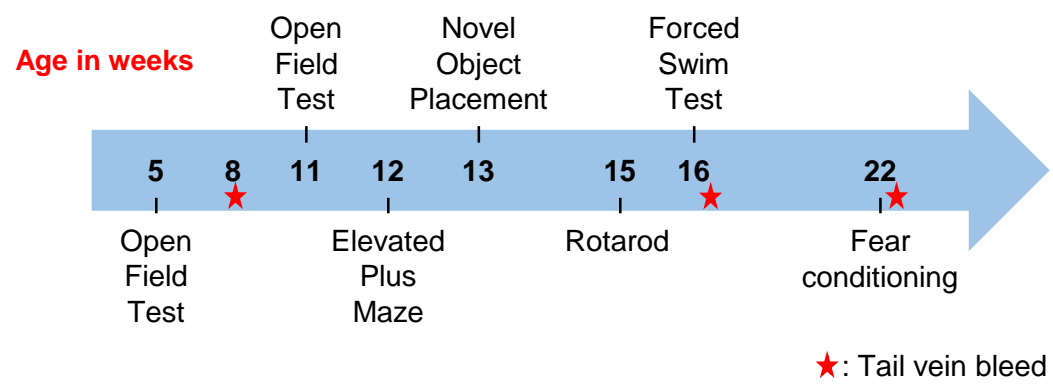
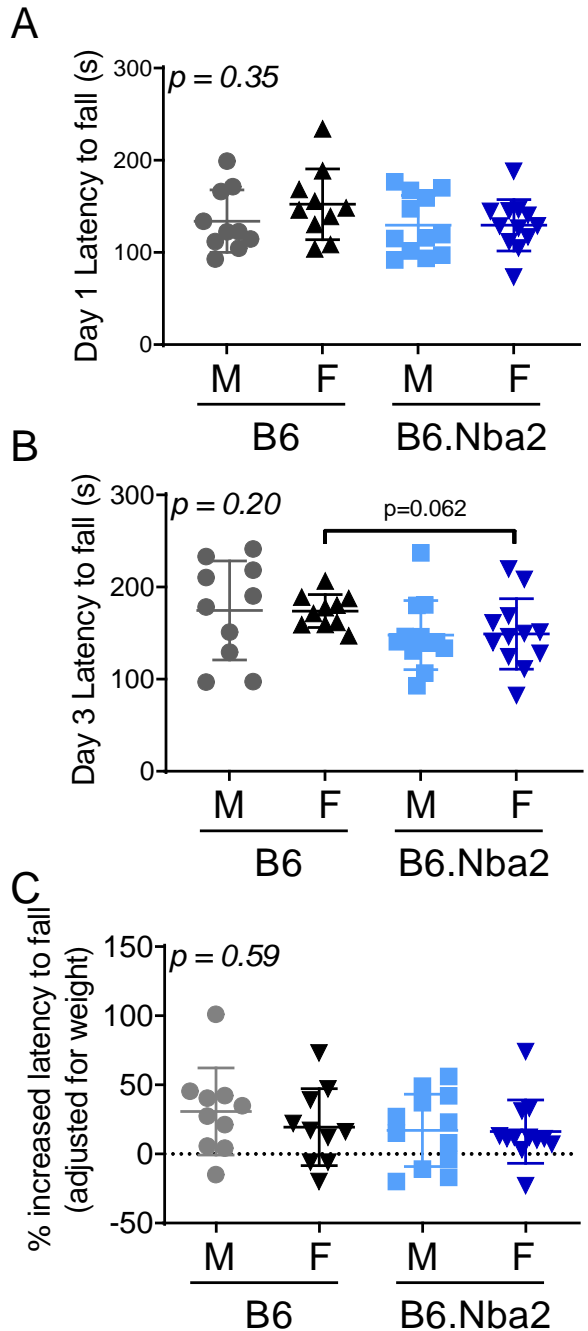


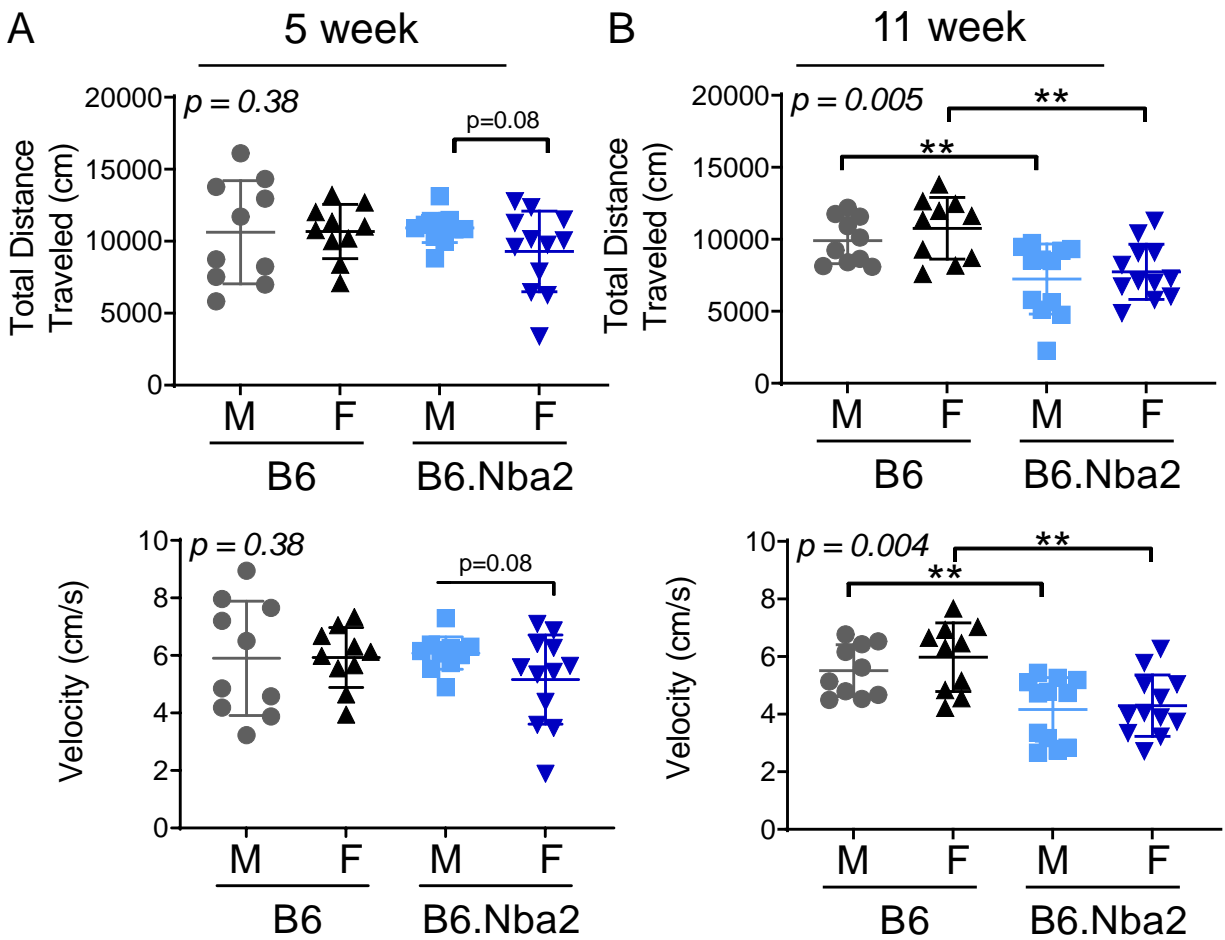
Supplemental Figure 1



Supplemental Figure 1. Order of behavioral studies performed on B6 and B6.Nba2 male and female mice presented in this study. Red stars indicate time points for bleeding of animals (8w, 16w+1d, 22w+1d).

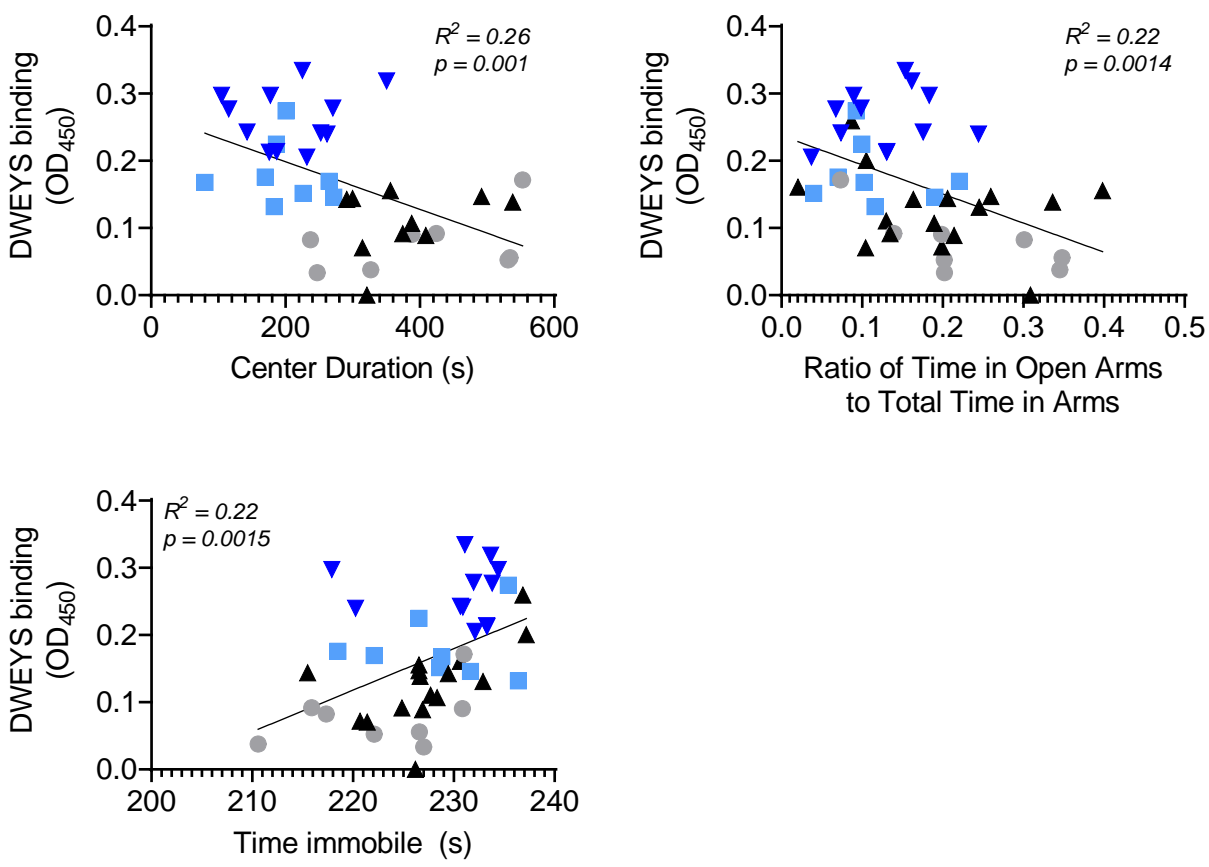


Supplemental Figure 2. Rotarod test shows no significant changes in motor skills between B6 and B6.Nba2 male and female mice. The latency to fall was recorded on day 1 (A) and day 3 (B), and the difference over time in latency to fall for each mouse was calculated as (% increase) and adjusted for weight (C).



Supplemental Figure 3. 11 week old B6.Nba2 mice display depressive phenotype by lack of movement in open field test. Total distance traveled (top row) and velocity (bottom row) of mice exploring the open field maze at 5 weeks (A) and 11 weeks (B). Each symbol represents one mouse, mean +/- SEM is shown by horizontal line and error bars. One-way ANOVA test result is show in upper left corner of each graph. Two-group comparisons were done using Student's unpaired t-test with Welch's correction. ** p < 0.01.

Supplemental Figure 4



Supplemental Figure 4. Levels of DWEYS-reactive IgG antibodies correlate with traits of anxiety and depression. Elevated levels of anti-DWEYS IgG antibodies correlate with less time spent at the center of the open field (A), less time spent in open arms (B) and more time being immobile (C). Linear regression results are shown for each graph. p-values <0.05 are regarded statistically significant.