



### Supplementary Figure 1.

**WT and *Egr3*<sup>-/-</sup> mice require same amount of stimulus during SD.** A significant effect of time ( $F_{4,88} = 5.967$ ,  $p = 0.0003$ ), but no significant effect of genotype ( $F_{1,22} = 2.270$ ,  $p = 0.1461$ ), and no interaction between time and genotype ( $F_{4,88} = 0.3534$ ,  $p = 0.8411$ ), was detected on the amount of stimulus required to keep animals awake. The results were unchanged following  $\log_2$  or  $\log_{10}$  transformation of the data, conducted to address the observation that both mean and variance seemed to increase with time. Two-way ANOVA with repeated measures,  $n = 12$ . Values represent means  $\pm$  SEM.