Figure S5  Sleep analyses of yar mutants. A. Analysis of circadian rhythm. Shown is the locomotor activity of females from the reference yar+/+ (y1 yar- w67c23, white bar) and the yar mutant (y1 yarΔHR2 w67c23) line kept in constant dark for ten days, after being reared for three days under twelve hr light/ twelve hr dark conditions. Circadian periodicity was calculated using the autocorrelation function of ClockLab software (Actimetrics at http://www.actimetrics.com/). The autocorrelation analysis shows that both strains maintain normal circadian rhythmicity under this free running condition. The average periods for reference and yarΔHR2 were 23.72 and 23.99 hrs, respectively. B. Analysis of waking activity. Waking activity index in the reference yar+/+ (y1 yar- w67c23, white bar) line and yar mutant lines (black bars) is calculated as a ratio of activity counts per waking time. Introduction of P[yar w] does not reduce the waking activity in rescued yar mutants. Kruskal-Wallis one way ANOVA, *, P<0.005.