Supplemental Table S3. Statistics for post-mortem analyses. Bold indicates significant effects, italics indicate trends.

Brain, Body Mass			
Analysis	Effect	Statistics in Females	Statistics in Males
2 (Genotype) x 2 (Condition) ANOVA: brain mass	genotype	***F*(1,63)=115.34, *p*<0.001**	***F*(1,53)=466.24, *p*<0.001**
	condition	*F*(1,63)=0.62, *p*=0.435	*F*(1,53)=0.62, *p*=0.436
	genotype x condition	*F*(1,63)=0.87, *p*=0.356	*F*(1,53)=0.87, *p*=0.354
2 (Genotype) x 2 (Condition) ANOVA: body mass	genotype	***F*(1,63)=15.77, *p*<0.001**	***F*(1,53)=9.17, *p*=0.004**
	condition	*F*(1,63)=1.46, *p*=0.231	*F(1,53)=3.36, p=0.072*
	genotype x condition	*F*(1,63)=2.77, *p*=0.101	*F*(1,53)=0.32, *p*=0.577
2 (Genotype) x 2 (Condition) ANOVA: brain % of body	genotype	***F*(1,63)=32.00, *p*<0.001**	***F*(1,53)=27.95, *p*<0.001**
	condition	*F*(1,63)=2.21, *p*=0.143	*F(1,53)=3.99, p=0.051*
	genotype x condition	*F*(1,63)=0.07, *p*=0.798	*F*(1,53)=0.02, *p*=0.891
Genotype *t*-test: Standard-housed	brain mass	***t*(29)=7.06, *p*<0.001**	***t*(26)=13.51, *p*<0.001**
	body mass	***t*(29)=3.41, *p*=0.002**	*t*(26)=1.33, *p*=0.195
	brain % of body	***t*(29)=3.56, *p*=0.001**	***t*(26)=3.56, *p*=0.002**
Genotype *t*-test: EE-housed	brain mass	***t*(34)=8.24, *p*<0.001**	***t*(28)=16.61, *p*<0.001**
	body mass	*t(34)=1.94, p=0.061*	***t*(28)=3.19, *p*=0.004**
	brain % of body	***t*(34)=4.48, *p*<0.001**	***t*(28)=3.93, *p*=0.001**
Condition *t*-test: *Pten*$^{+/+}$	brain mass	*t*(36)=1.22, *p*=0.230	*t*(26)=0.39, *p*=0.702
	body mass	*t*(36)=0.39, *p*=0.702	*t(26)=1.74, p=0.093*
	brain % of body	*t*(36)=0.97, *p*=0.341	*t*(26)=1.35, *p*=0.188
Condition *t*-test: *Pten*$^{+/-}$	brain mass	*t*(27)=0.11, *p*=0.916	*t*(28)=1.30, *p*=0.204
	body mass	*t*(27)=1.70, *p*=0.101	*t*(28)=1.00, *p*=0.324
	brain % of body	*t*(27)=1.11, *p*=0.278	*t*(28)=1.48, *p*=0.151
Synaptosomal Western Blot			
Analysis	Effect	Statistics	
2 (Genotype) x 2 (Condition) ANOVA: vGluT1/β-actin	genotype	*F*(1,29)=0.08, *p*=0.786	
	condition	*F*(1,29)=0.02, *p*=0.889	
	genotype x condition	***F*(1,29)=5.83, *p*=0.022**	
	Post hocs	Std, WT vs *Pten*$^{+/-}$: ***p*=0.015**	
		EE, WT vs *Pten*$^{+/-}$: *p*=0.220	
		WT, Std vs EE: *p*=0.108	
		Pten$^{+/-}$, Std vs EE: *p=0.090*	

2 (Genotype) x 2 (Condition) ANOVA: vGAT/β-actin	genotype	$F(1,29)=0.50$, $p=0.486$
	condition	$F(1,29)=2.18$, $p=0.151$
	genotype x condition	$F(1,29)=0.44$, $p=0.513$
2 (Genotype) x 2 (Condition) ANOVA: PSD-95/β-actin	genotype	$F(1,29)=0.10$, $p=0.756$
	condition	$F(1,29)=1.37$, $p=0.251$
	genotype x condition	$F(1,29)=1.88$, $p=0.181$
2 (Genotype) x 2 (Condition) ANOVA: gephyrin/β-actin	genotype	$F(1,29)=0.01$, $p=0.924$
	condition	$F(1,29)=1.88$, $p=0.181$
	genotype x condition	$F(1,29)=0.58$, $p=0.454$
Genotype *t*-test: Standard-housed	vGluT1/β-actin	**$t(23)=2.67$, $p=0.014$**
	vGAT/β-actin	**$t(23)=2.17$, $p=0.041$**
	PSD-95/β-actin	$t(23)=1.67$, $p=0.110$
	gephyrin/β-actin	$t(23)=0.60$, $p=0.554$
Genotype *t*-test: EE-housed	vGluT1/β-actin	$t(8)=1.44$, $p=0.192$
	vGAT/β-actin	$t(8)=0.02$, $p=0.989$
	PSD-95/β-actin	$t(8)=0.57$, $p=0.589$
	gephyrin/β-actin	$t(8)=0.64$, $p=0.546$
Condition *t*-test: *Pten*$^{+/+}$	vGluT1/β-actin	*$t(15)=1.79$, $p=0.094$*
	vGAT/β-actin	$t(15)=1.46$, $p=0.165$
	PSD-95/β-actin	*$t(15)=1.79$, $p=0.096$*
	gephyrin/β-actin	$t(15)=1.74$, $p=0.105$
Condition *t*-test: *Pten*$^{+/-}$	vGluT1/β-actin	*$t(15)=1.76$, $p=0.098$*
	vGAT/β-actin	$t(15)=0.60$, $p=0.559$
	PSD-95/β-actin	$t(15)=0.14$, $p=0.890$
	gephyrin/β-actin	$t(15)=0.39$, $p=0.704$