

## Supplemental Figure Legends

### Figure S1. Schematic of Translating Ribosomal Affinity Purification.

**Figure S2. *Etnppl* expression across tissues.** *Etnppl* mRNA expression in wild-type adult liver (liv), kidney (kid), heart, gWAT, iWAT, sol, plant, gut, brain, and BAT. Data (as mentioned in text) are expressed as mean  $\pm$  S.D. Represented data analyzed using multiple student's two-tailed t-tests. Outliers were removed after using Grubb's outlier test.  $^*\alpha = 0.05$ ;  $^{**}\alpha = 0.01$ ;  $^{***}\alpha = 0.001$ ;  $^{****}\alpha = 0.0001$ ; ns, not significant.

**Figure S3. Impact of dexamethasone in primary astrocytes on glucocorticoid responsive genes.** mRNA expression of glucocorticoid-responsive genes in wild-type P2 1<sup>o</sup> astrocytes after a 24- or 72-hour exposure the glucocorticoid agonist dexamethasone. [dexamethasone] = 100nM. (n = 3). Data (as mentioned in text) are expressed as mean  $\pm$  S.D. Represented data analyzed using multiple student's two-tailed t-tests. Outliers were removed after using Grubb's outlier test.  $^*\alpha = 0.05$ ;  $^{**}\alpha = 0.01$ ;  $^{***}\alpha = 0.001$ ;  $^{****}\alpha = 0.0001$ ; ns, not significant.

### Figure S4. Impact of *Etnppl* loss on PC metabolites in the hippocampal metabolome.

Relative abundances of PC-associated metabolites in whole hippocampus from 18-hour fasted 9-week-old *Etnppl*<sup>KO</sup> and WT (n = 6). Data in A are expressed as mean  $\pm$  S.D. Represented data analyzed using multiple student's two-tailed t-tests. Statistical significance of represented metabolites in B determined using two-stage false discovery rate (FDR) method of Benjamini, Krieger, and Yekutieli with a FDR (Q) of 10%. Fold changes in green boxes are significantly increased, fold changes in red boxes are significantly decreased, and fold changes in yellow boxes are not significantly affected by genotype.  $^*\alpha = 0.05$ ;  $^{**}\alpha = 0.01$ ;  $^{***}\alpha = 0.001$ ;  $^{****}\alpha = 0.0001$ ; ns, not significant.

**Figure S5. PE abundance and composition is altered in cortex after loss of Etnppl.**

Relative abundance in PE species in cortex from 18-hour fasted, 9-week-old Etnppl<sup>KO</sup> and WT mice. (n = 5) Data are expressed as mean  $\pm$  S.D. Represented data analyzed using multiple student's two-tailed t-tests. \* $\alpha$  = 0.05; \*\* $\alpha$  = 0.01; \*\*\* $\alpha$  = 0.001; \*\*\*\* $\alpha$  = 0.0001; ns, not significant.

**Figure S6. PC abundance and composition is altered in cortex after loss of Etnppl.**

Relative abundance in PC species in cortex from 18-hour fasted, 9-week-old Etnppl<sup>KO</sup> and WT mice. (n = 5) Data are expressed as mean  $\pm$  S.D. Represented data analyzed using multiple student's two-tailed t-tests. \* $\alpha$  = 0.05; \*\* $\alpha$  = 0.01; \*\*\* $\alpha$  = 0.001; \*\*\*\* $\alpha$  = 0.0001; ns, not significant.