# Supporting Information

## Gulati et al. 10.1073/pnas.1222796110

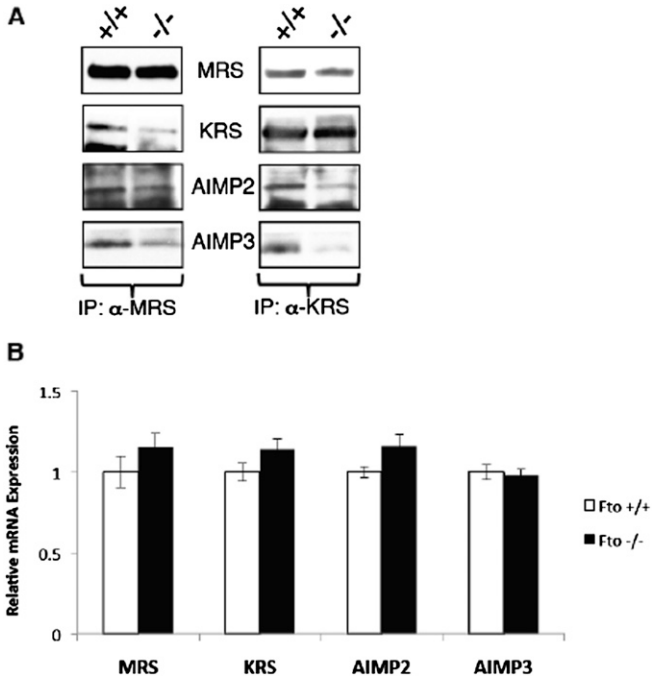


**Fig. S1.** *Fto*$^{-/-}$ mouse embryonic fibroblasts (MEFs) have perturbed multi-tRNA synthetase complex levels at protein level but not at mRNA level. (*A*) Methionyl-tRNA synthetase (MRS) and lysyl-tRNA synthetase (KRS) were immunoprecipitated from cell extracts of *Fto*$^{+/+}$ and *Fto*$^{-/-}$ MEFs using antibodies against MRS and KRS as explained in Fig. 3*B*. Resulting immunoprecipitates were analyzed for components of multi-tRNA synthetase complex by Western blotting using indicated antibodies. (*B*) mRNA from *Fto*$^{+/+}$ and *Fto*$^{-/-}$ MEFs was used for quantitative RT-PCR analysis of genes indicated. The graph shows the fold change expression of MRS, KRS, AIMP2, and AIMP3 genes in *Fto*$^{+/+}$ and *Fto*$^{-/-}$ MEFs, respectively. All data are expressed as mean ± SEM.

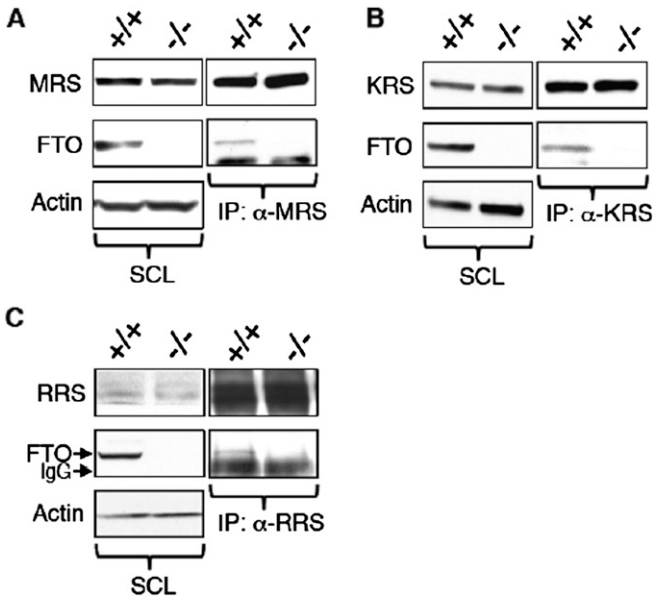


**Fig. S2.** Interaction of FTO with members of aminoacyl-tRNA synthetase family. MRS (*A*), KRS (*B*), and RRS (*C*) immunoprecipitation was performed in a similar manner as explained in Fig. 3*B*.

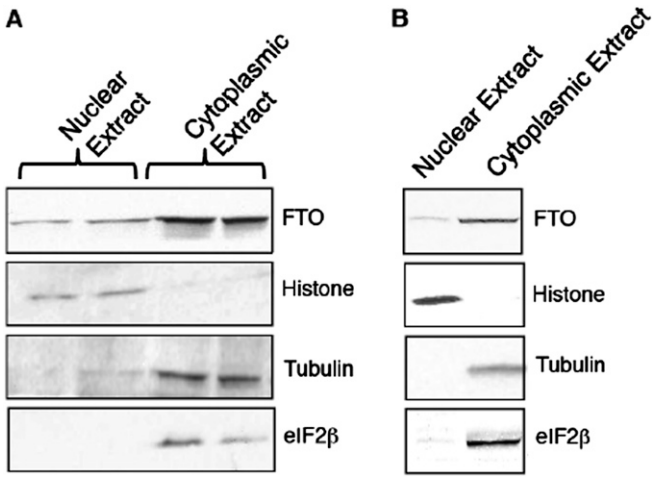


**Fig. S3.** Cytoplasmic localization of FTO in different cell lines. Extracts derived from mouse pancreatic β-cell line (lysed by detergent) (*A*) and hypothalamic N46 cells (lysed by mechanical breakage) (*B*) were subjected to subcellular fractionation using the compartmental protein extraction kit from Millipore per manufacturer instructions.