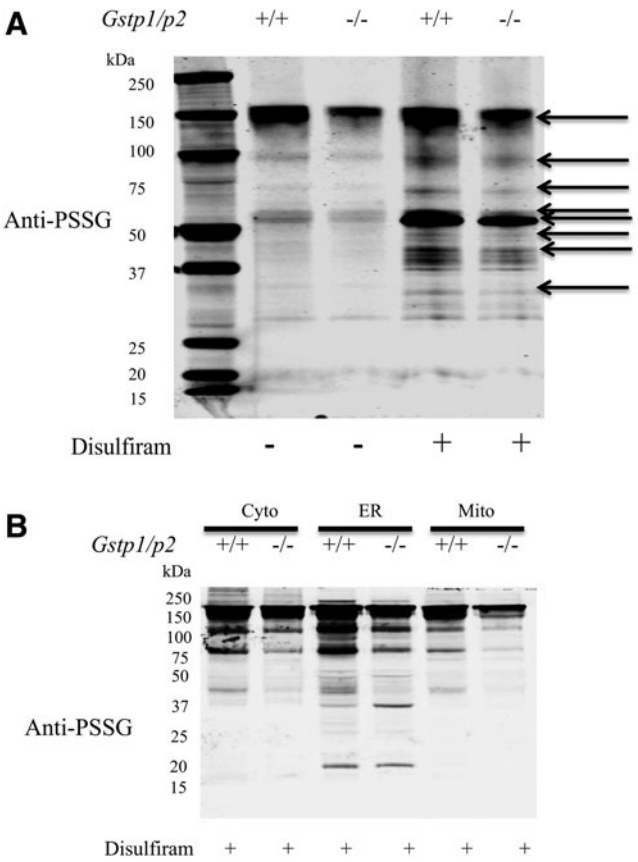
Supplementary Data



SUPPLEMENTARY FIG. S1. Disulfram induced S-glutathionylation in liver lysate and subcellular compartment, including cytosol (Cyto), endoplasmic reticulum (ER) and mitochondria (Mito) from *Gstp1/p2*$^{+/+}$ and *Gstp1/p2*$^{-/-}$ mice. **(A)** Liver lysates were freshly prepared from *Gstp1/p2*$^{+/+}$ and *Gstp1/p2*$^{-/-}$ mice. Thirty micrograms of control or disulfiram-treated (10 μM, 30 min at 37°C) proteins was separated by SDS-PAGE under nonreducing conditions and blotted for anti-PSSG. Based on this result, protein bands of interest, defined as those with S-glutathionylation levels that quantitatively differed between *Gstp1/p2*$^{+/+}$ and *Gstp1/p2*$^{-/-}$ mice (see *arrows*), were excised from the Brilliant Blue G-colloidal stained gel and subject to digestion. The peptides were further analyzed and identified by mass spectrometry at the Proteomics Core Facility of the Medical University of South Carolina. **(B)** Liver tissue homogenates were treated with 10 μM disulfiram for 30 min at 37°C and free thiols were blocked by adding 5 mM NEM for 30 min. Subcellular fractionation was performed as described in ''Materials and Methods'' and proteins were separated by SDS-PAGE under nonreducing conditions and blotted for anti-PSSG. GSTP, glutathione *S*-transferase Pi; NEM, *N*-ethylmaleimide; PSSG, protein S-glutathionylation; SDS-PAGE, sodium dodecyl sulfate–polyacrylamide gel electrophoresis.