



**SUPPLEMENTARY FIG. S3. GPx7 accelerates GSH oxidation catalyzed by Ero1 $\alpha$ /protein disulfide isomerase (PDI).** (A) Oxygen consumption was monitored by using 10 mM GSH as reducing equivalents in the presence of 3  $\mu$ M Ero1 $\alpha$  and 10  $\mu$ M PDI, with or without 10  $\mu$ M GPx7, as indicated. (B) Linear dependence of the oxygen consumption rate on the concentrations of GPx7. (C) GPx activity was measured after the decrease in absorbance at 340 nm due to NADPH consumption by glutathione reductase, in the presence of 5 mM GSH, 3  $\mu$ M Ero1 $\alpha$ , and 10  $\mu$ M PDI, with or without 10  $\mu$ M GPx7, as indicated. (D) The relative rate of GSH oxidation was calculated according to the rate of NADPH consumption ( $n \geq 3$ ).