

Figure S1. CYGB disrupted mitochondrial function

A. Oxygen consumption rate (OCR) of the MOCK- and CYGB-overexpressing SW620 cells. Respiratory chain inhibitors were serially added to the culture at the indicated time points. Basal OCRs are shown by subtracting the rotenone/antimycin-treated value from the initial value. **B.** Mitochondrial membrane potential was evaluated by fluorescence staining of mitochondria with the JC-1 dye. Data represent the mean \pm S.D. of three biological replicates. * $P < 0.05$, ** $P < 0.01$.

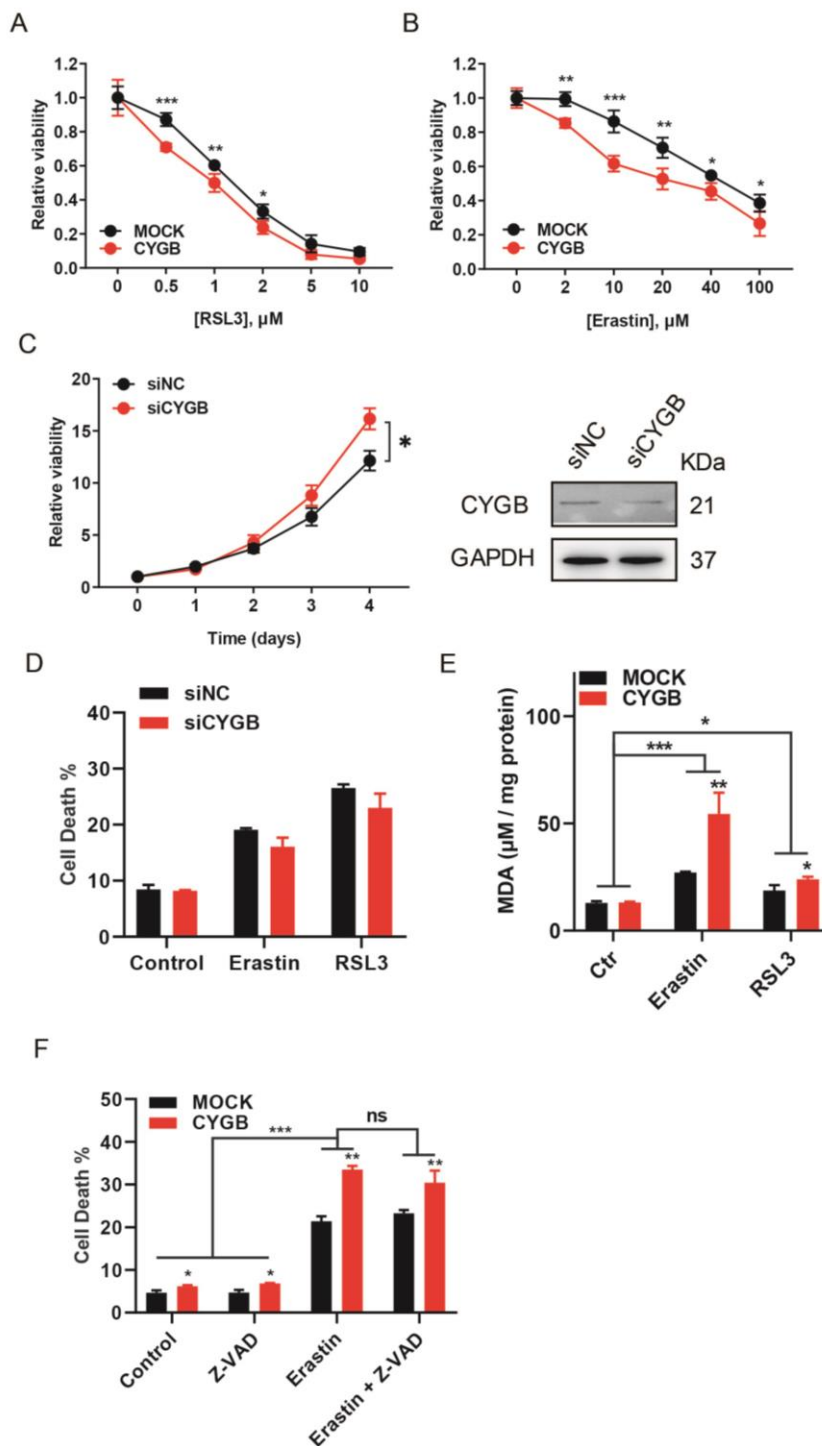


Figure S2. CYGB increased sensitivity to ferroptosis

A, B. Effects of CYGB on cell proliferation after application of the ferroptosis inducers RSL3 (**A**) or erastin (**B**). The indicated concentrations of the inducers were applied, and the cell growth was determined after 48 hours. Relative viability normalized to the untreated condition was used. Data represent the mean \pm S.D. of three biological replicates. * $P < 0.05$, ** $P < 0.01$, and *** $P < 0.001$.

C. Effects of CYGB knockdown on cell proliferation after CYGB siRNAs (siRNA of CYGB 5'-GGA GGA AUC CCU GAC UCA A-3') mediated knockdown in HCT116 cells. The knockdown efficiency was verified by immunoblotting. **D.** Effects of CYGB knockdown on cell death after the application of ferroptosis inducers RSL3 or erastin. Cell death detection was applied with a 24-hour treatment of ferroptosis inducers RSL3 or erastin after 72 hours CYGB knockdown. **E.** Malondialdehyde (MDA) levels were detected in cells with RSL3 or erastin treatment using a lipid peroxidation MDA assay kit. **F.** Cell death was analyzed with propidium iodide (PI) staining by flow cytometry after the application of Z-VAD, with or without erastin.

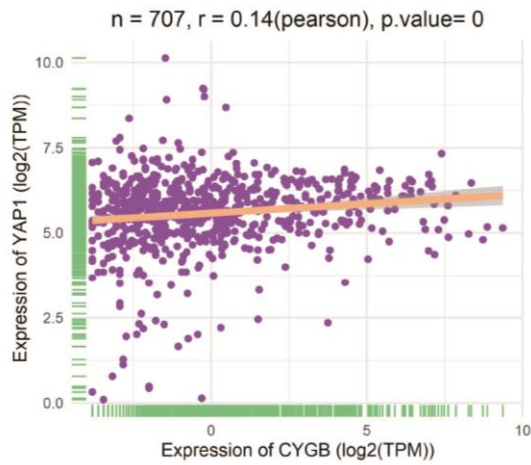
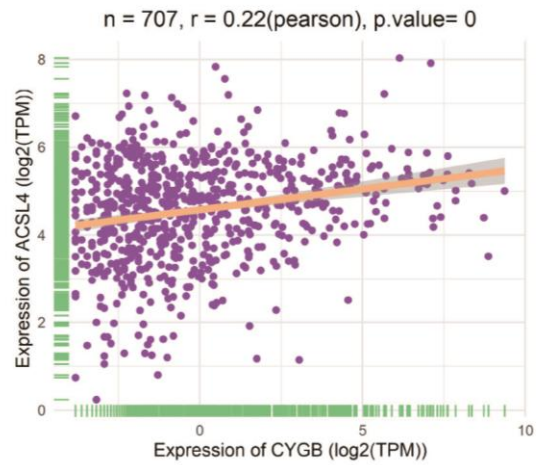
A**B**

Figure S3. CYGB had the significant correlation with YAP1

A, B. Positive correlations between CYGB and YAP1 (A); and between CYGB and ACSL4 (B) mRNA expression in colon cancer cells from Cancer Cell Line Encyclopedia (CCLE) databases.