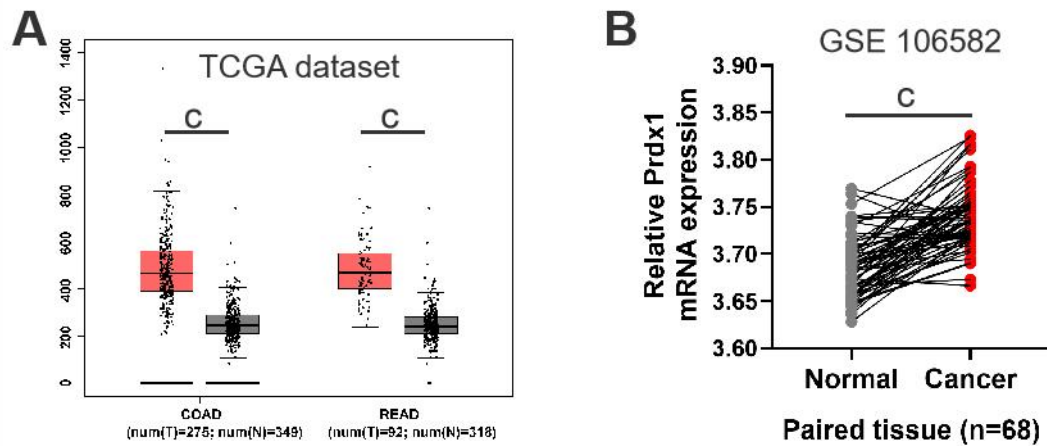
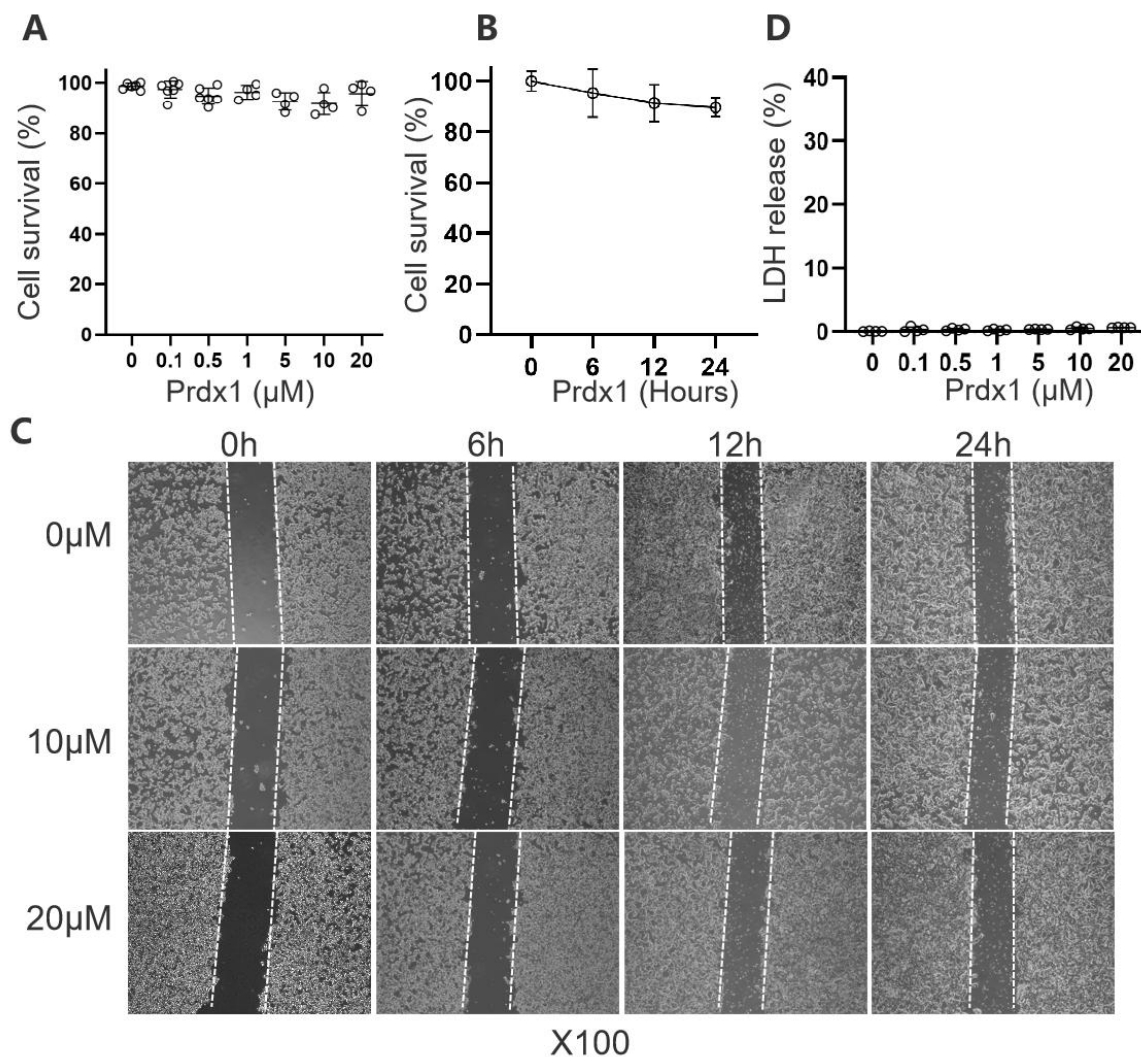


**Supplementary Figure 1. Bioinformatics analysis show the high expression of Prdx1 in CRC tissues.**



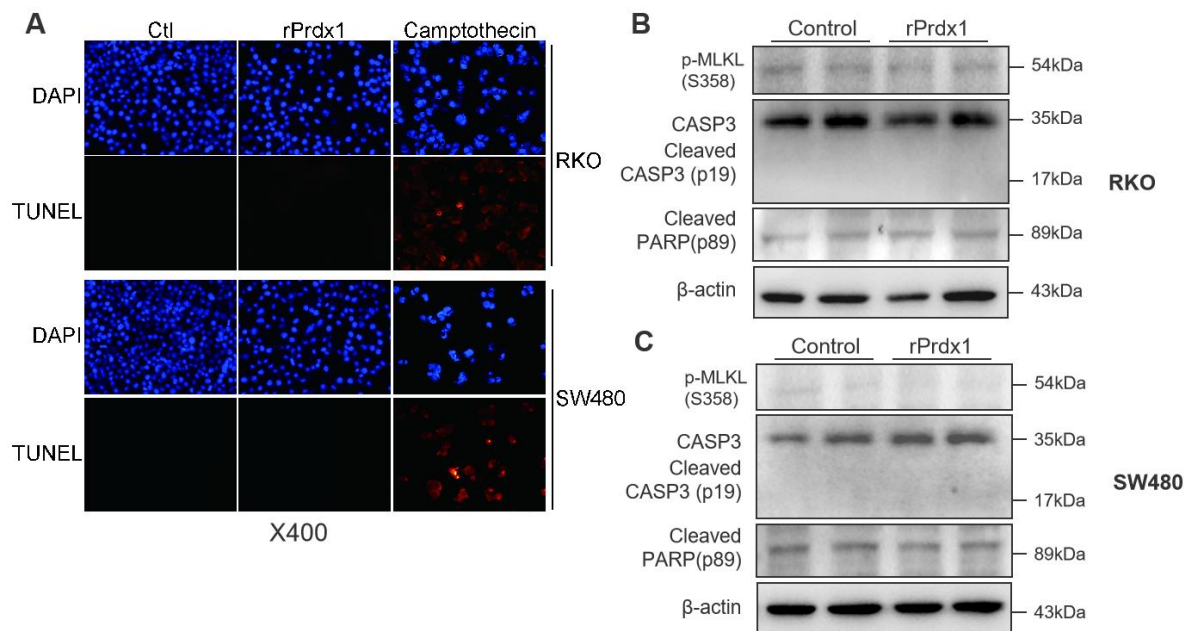
**A:** The mRNA expression of Prdx1 in COAD/READ (T) is higher than that in the paired normal tissues (N) in TCGA Database; COAD:  $T_n/N_n = 275/349$ , READ:  $T_n/N_n = 92/318$ . **B:** The mRNA expression of Prdx1 in tumor tissues is higher than that in the paired normal tissues from a CRC set of GSE106582 ( $n = 68$ ). Data are expressed as the mean  $\pm$  SD;  $^{\circ}P < 0.001$ .

**Supplementary Figure 2. rPrdx1 has no effect on viability and motility of HCT-116 cells.**



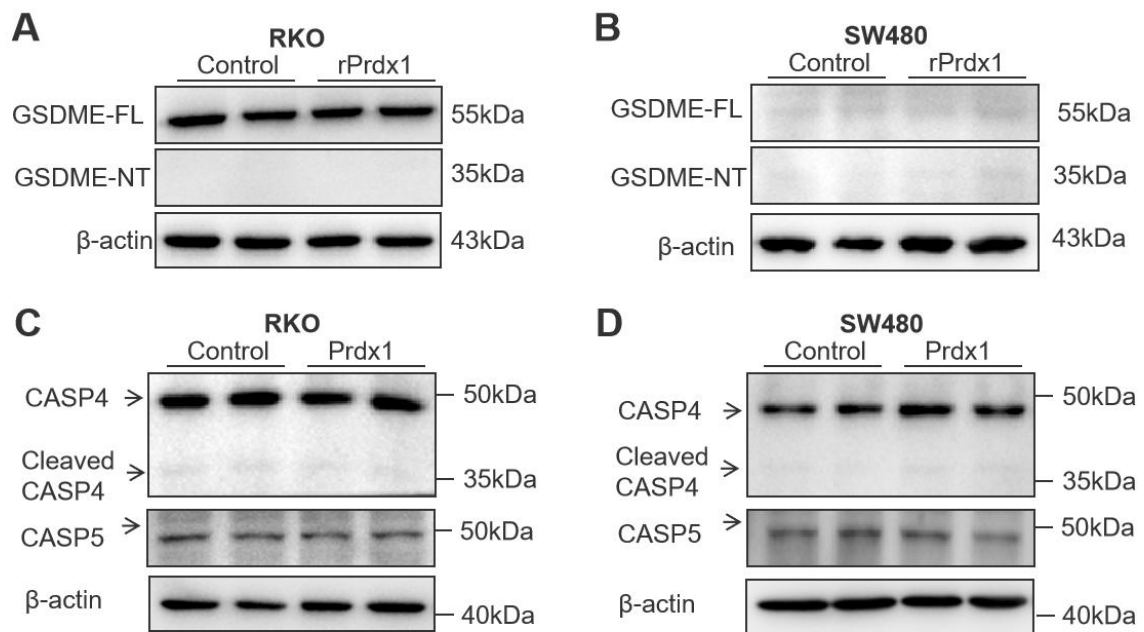
**A:** Cell survival of HCT-116 cells detected by MTT under different dose of rPrdx1 stimulation for 24 hours. **B:** Cell survival of HCT-116 cells detected by MTT with 20 μM rPrdx1 stimulation for different time. **C:** Motility of HCT-116 cells measured by wound healing assay with different doses of rPrdx1 stimulation for 6, 12 and 24 hours, respectively. **D:** LDH release from HCT-116 cells induced by different doses of rPrdx1 stimulation for 24 hours. These experiments were repeated for three times independently. Data are expressed as the mean  $\pm$  SD. rPrdx1: 20 μM for 24 hours.

**Supplementary Figure 3. rPrdx1 could not induce apoptosis and necroptosis of RKO and SW480 cells.**



**A:** Representative images of apoptosis of HCT-116 cells detected by TUNEL assay under rPrdx1 stimulation. **B:** The expression of markers of apoptosis (cleaved-Caspase3 and cleaved-PARP) and necroptosis (p-MLKL) detected by western blotting in RKO cells under Prdx1 stimulation. **C:** The expression of markers of apoptosis (cleaved-Caspase3 and cleaved-PARP) and necroptosis (p-MLKL) detected by western blotting in SW480 cells under Prdx1 stimulation. This experiment was repeated for three times independently. rPrdx1: 20 $\mu$ M for 24 hours. Camptothecin (apoptosis activator): 1 $\mu$ M for 6 hours.

**Supplementary Figure 4. rPrdx1 has no effect on the expression GSDME and Caspase4/5 of RKO and SW480 cells.**



**A-B:** The expression of GSDME-FL and GSDMD-NT in RKO and SW480 cells detected by western blotting under rPrdx1 stimulation. **C-D:** The expression of Caspase-4 (CASP4) and Caspase-5 (CASP5) in RKO and SW480 cells detected by western blotting under rPrdx1 stimulation. rPrdx1: 20 $\mu$ M for 24 hours.