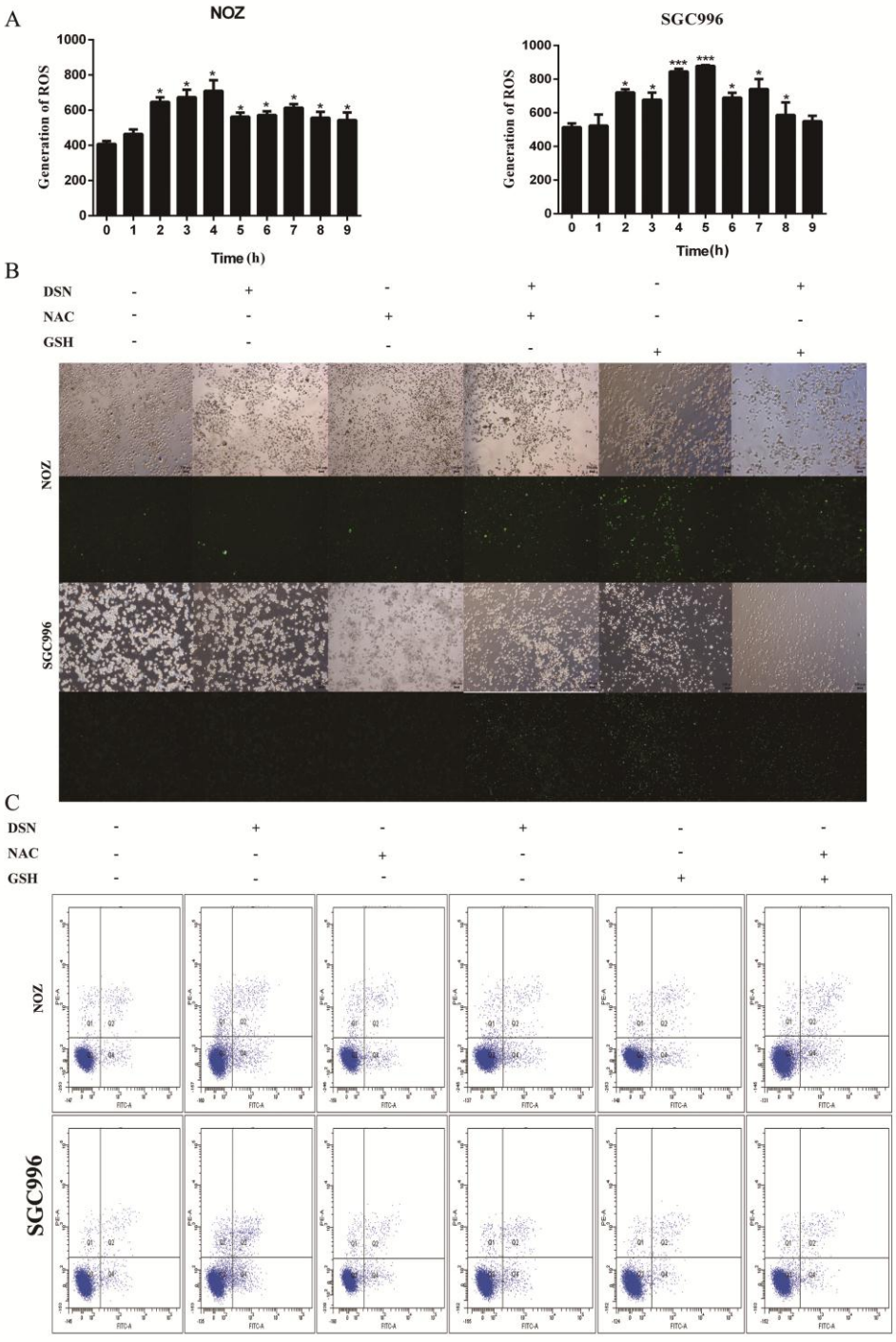
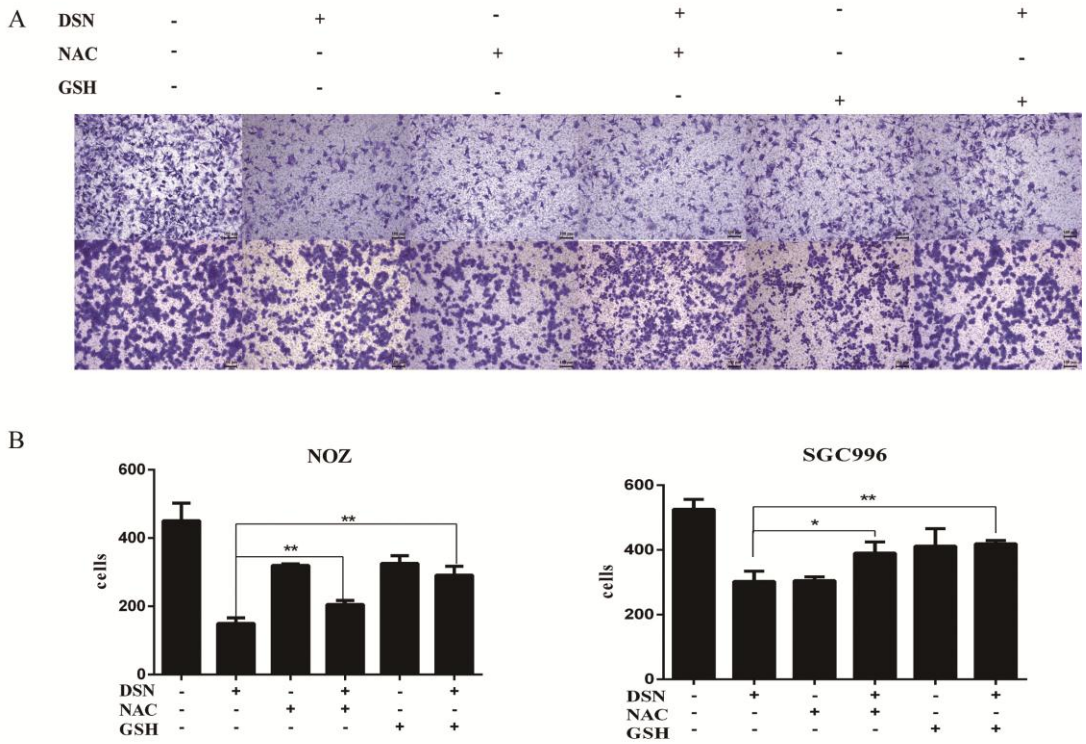
FigureS1



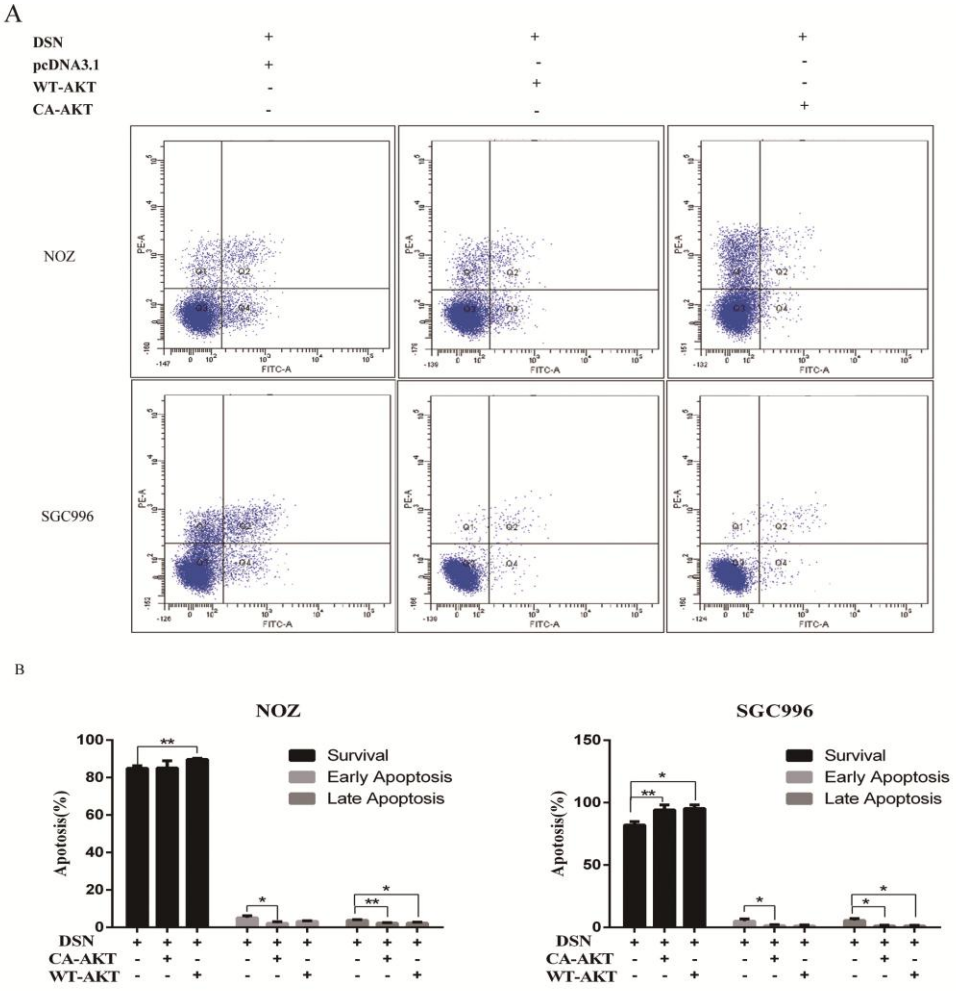
FigureS1 A) NOZ and SGC996 cells treated with 4μM DSN for different time intervals, followed by incubation with the fluorescent probe DCFH-DA (10 μM) for 30min, ROS generation was detected using a microplate reader. B) ROS generation was detected by flow cytometry. C) NOZ and SGC996 cells were treated with DSN in the absence or presence of NAC and GSH. Apoptosis was analysed by flow cytometry.

FigureS2



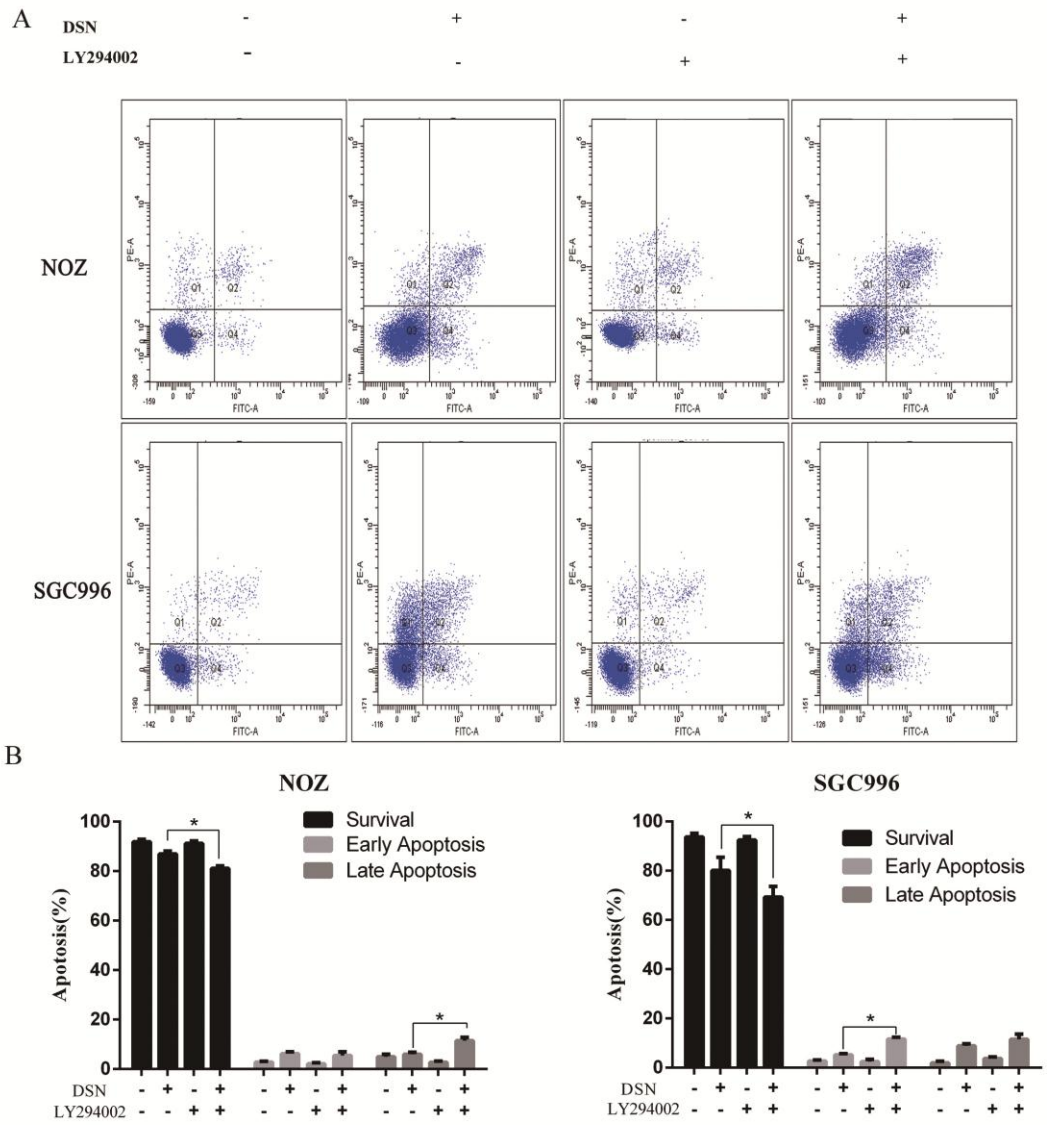
FigureS2 A-B) NOZ and SGC996 cells were treated with DSN in the absence or presence of NAC and GSH. The effects of DSN migration on GBC cell were assessed by transwell migration analysis. All data are presented as the means ± standard deviations, and each experiment was repeated 3 times. Significant differences compared with the control are indicated by *p<0.05, **p<0.01, and***p<0.001.

FigureS3



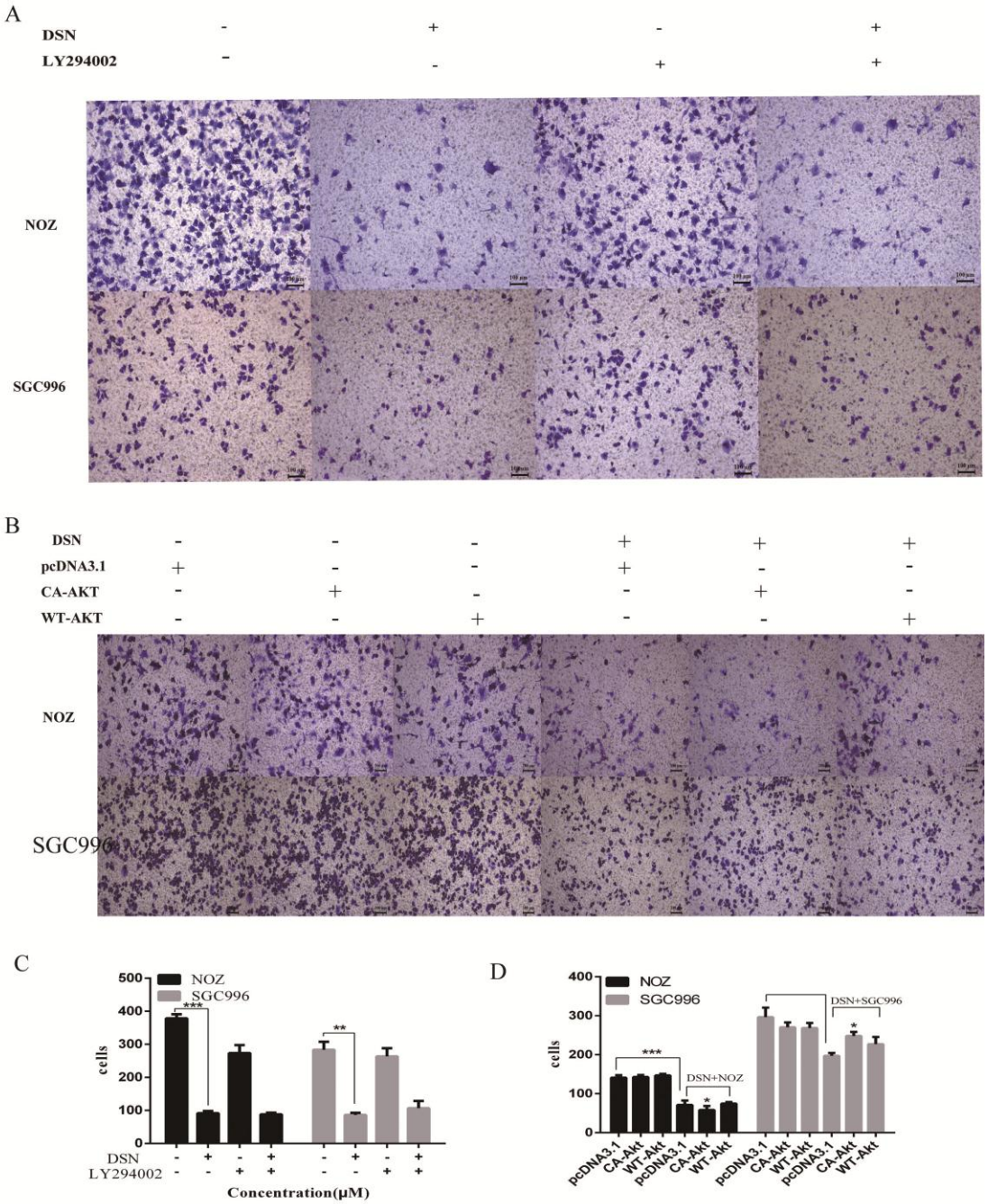
FigureS3 A-B）NOZ and SGC996 cells were transfected with CA-AKT and WT-AKT,apoptosis was analysed by flow cytometry.

FigureS4



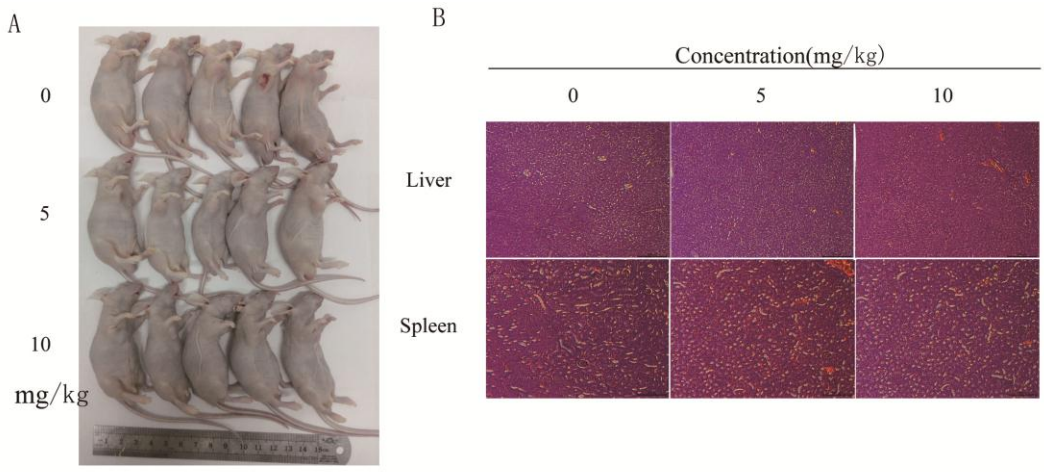
FigureS4 A-B) NOZ and SGC996 cells were treated with DSN in absence or presence of LY294002. Apoptosis was analysed by flow cytometry.

FigureS5



FigureS5 A,C) NOZ and SGC996 cells were treated in absence or presence of LY294002. The effects of DSN on GBC cell migration were assessed by transwell migration analysis. B,D) NOZ and SGC996 cells were transfected with pcDNA3.1, WT-AKT or CA-AKT, the migration of DSN on GBC cell was assessed by transwell migration analysis. All data are presented as the means ± standard deviations, and each experiment was repeated 3 times. Significant differences compared with the control are indicated by *p<0.05, **p<0.01, and ***p<0.001.

FigureS6



FigureS6 A) Different concentrations(0，5 mg/kg and 10 mg/kg) of DSN were injected into nude mice after NOZ cell inoculation every 2 days. Images of 5 representative mice from each group are presented to show the appearances of the resultant tumours. B) HE staining of mice's liver and spleen of three groups.