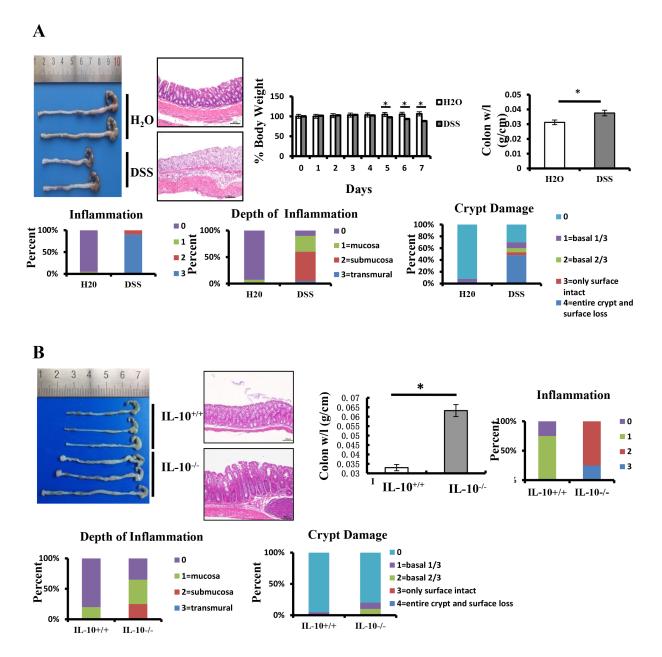
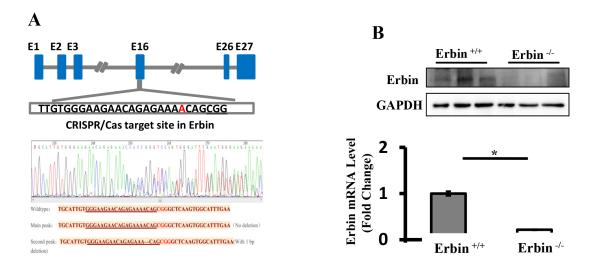
## Erbin exerts a protective effect against inflammatory bowel disease by suppressing autophagic cell death

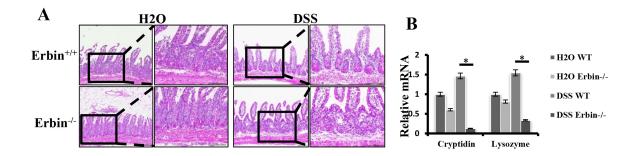
## SUPPLEMENTARY MATERIALS



Supplementary Figure 1: Two types of experimental colitis mouse models: DSS- induced colitis mouse model and IL-10 deletion (IL-10<sup>-/-</sup>) mouse model. (A) Gross appearance, body weight during 7 days, the ratio of colon weight and length, histological scorings for intestinal inflammatory response and epithelial injury in mice after DSS treatment. (B) Gross appearance, the ratio of colon weight and length, histological scorings for intestinal inflammatory response and epithelial injury in IL-10<sup>-/-</sup> and IL-10<sup>+/+</sup> mice. Scale bar, 50  $\mu$ m (A and B). Data are expressed as means±SEM. \**P* < 0.05 (t-test) (A and B).



Supplementary Figure 2: Generation of Erbin deletion (Erbin<sup>-/-</sup>) mice. (A) Schematic diagram of Erbin deletion by CRISPR/ Pro systems. (B) Expression of Erbin by Western Blots (WB) and RT-PCR in Wild type (WT) and Erbin<sup>-/-</sup> mice. Data are expressed as means $\pm$ SEM. \**P* < 0.05 (t-test) (B).



**Supplementary Figure 3: Paneth cells in Erbin deletion mice.** (A) phloxine-tartrazine staining for Paneth cell in small intestine of Wild type (WT) and Erbin<sup>-/-</sup> mice with or without DSS treatment. (B) mRNA expression of Cryptidini and Lysozyme by RT-PCR from terminal ileum of WT and Erbin<sup>-/-</sup> mice with or without DSS treatment. Data are expressed as means±SEM. Scale bars = 50  $\mu$ m (A). \**P* < 0.05 (t-test) (B).