





Figure S1. (A) Southern blot analysis of BamHI-digested genomic DNA from wild-type (+/+) and Lig1-null ( $\Delta/\Delta$ ) cells. (B) Northern blot analysis of polyadenylated RNA from wild-type (+/+) and Lig1-null ( $\Delta/\Delta$ ) cells. The blot was stripped and re-probed with β-actin. The asterisk indicates the remaining Lig1 signal from the previous probing. (C) RT-PCR to detect Lig1 transcript in wild type (+/+), Lig1P/ $\Delta$  and Lig1 $\Delta/\Delta$  cells. (D) Sanger sequencing of the RT-PCR product derived from the  $\Delta$  allele showing the join of exon 17 and 20 (and the absence of exons 18-19). (E) Western blot analysis of the Lig1 protein level wild type (+/+) and Lig1-null (P/ $\Delta$ ) cells. 18051-1-AP (Proteintech) is a rabbit polyclonal antibody raised against GST-Lig1 protein. Sc-20222 (Santa Cruz) is a goat polyclonal antibody recognize a N-terminal region of Lig1. The asterisk indicates a non-specific crossreactive band.