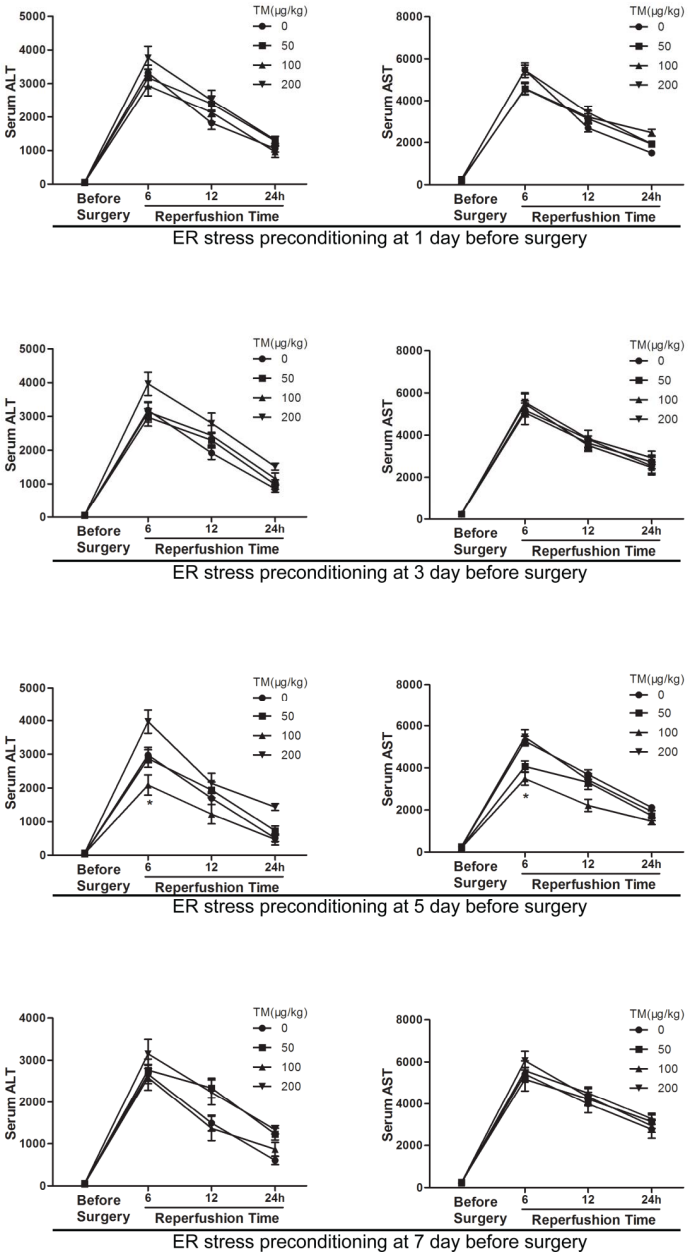
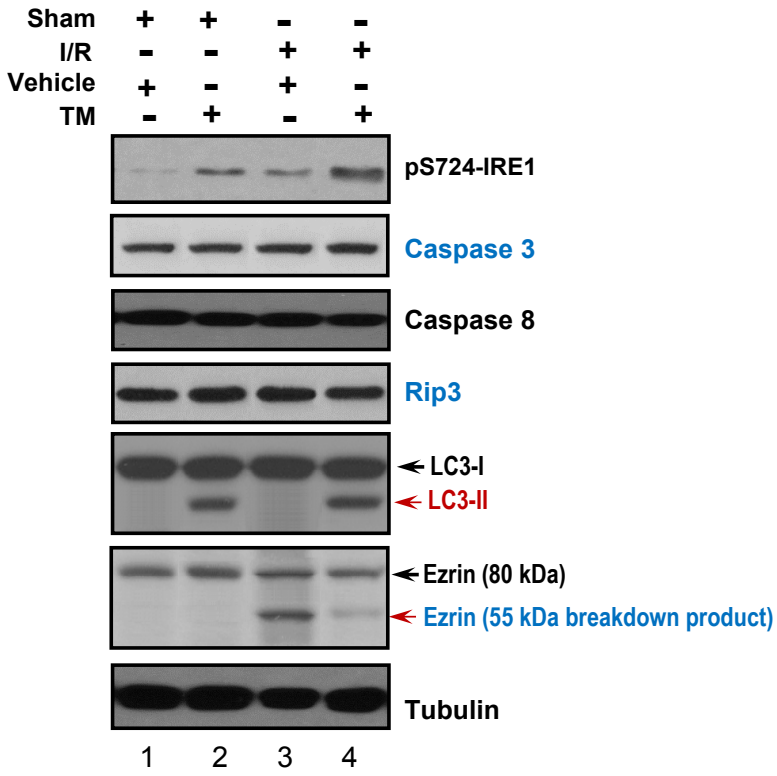
Supplementary Figure S1



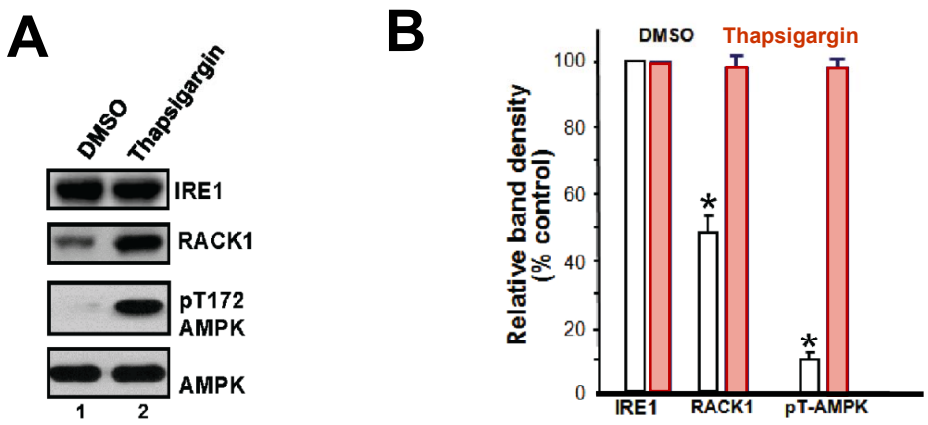
Supplementary Figure S1 | Serum ALT/AST levels at different times after I/R injury with ER stress preconditioning (administration of TM, 50, 100, 200 μg/kg at 1, 3, 5, 7 days before surgery). Blood samples were drawn through the tail vein of the rats at indicated time points (6, 12 and 24 hours) and prepared for analysis. ALT and AST levels were presented in units/L and expressed as means ± SD. *, $p < 0.05$.

Supplementary Figure S2



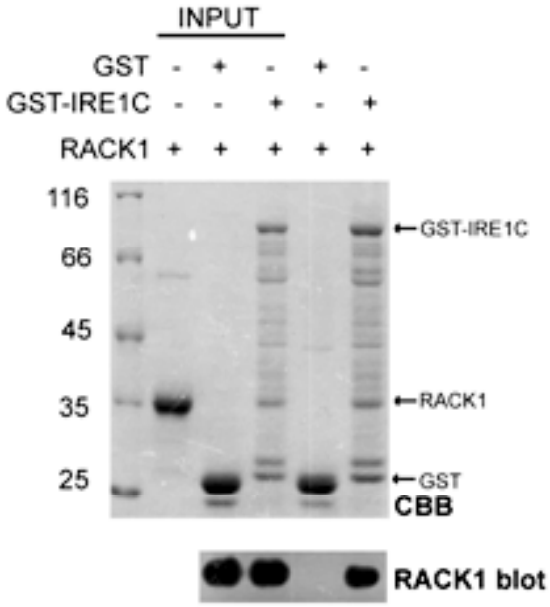
Supplementary Figure S2 | ER stress preconditioning (50 μg/kg for 5 days) has been carried out as described in the ***Materials and Methods***. Western blotting analyses of pS724-IRE1, caspase 3 (reactive to active caspase 3; apoptosis marker), caspase 8, ezrin (reactive to 80-kDa and 55-kDa calpain cleavage productive; an indicator for calpain activation), LC3 (reactive to I and II, autophagy marker), Rip3 (necrosis marker) and tubulin of rat liver were carried out and representative images were presented.

Supplementary Figure S3



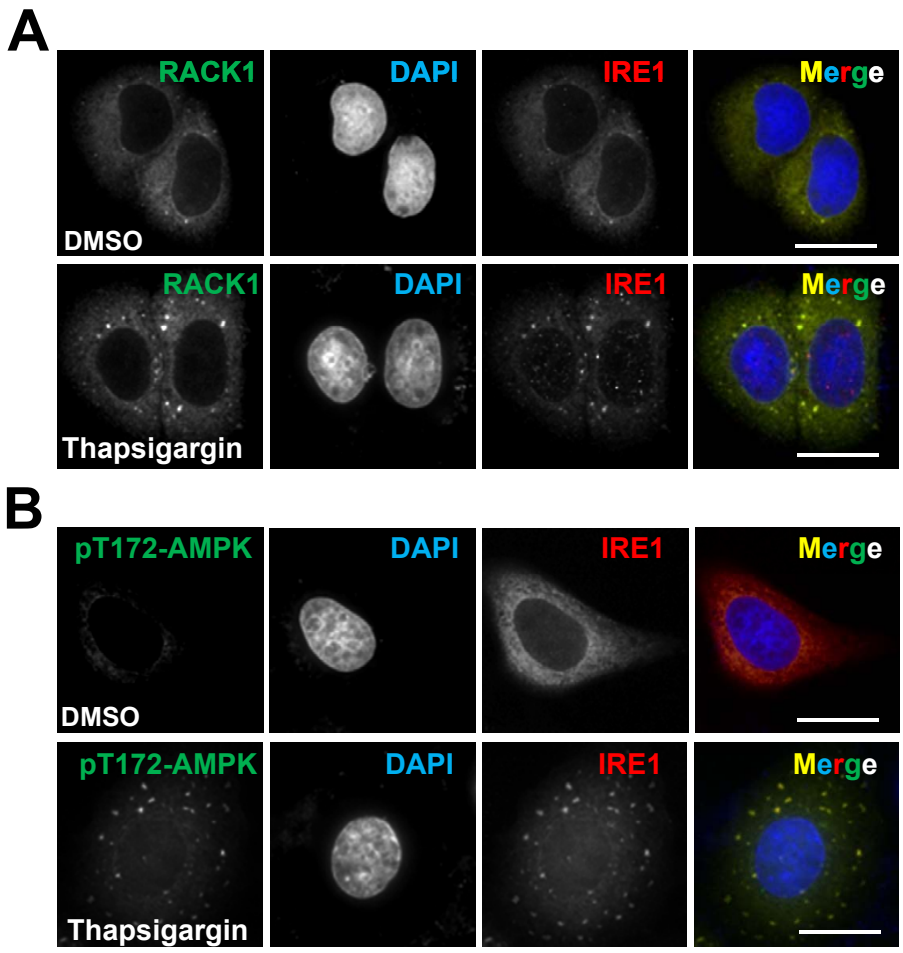
Supplementary Figure S3 | IRE1 forms a complex with RACK1 and AMPK in response to TG treatment. (**A**) IRE1 complex contains phosphorylated AMPK from TG-treated cells (15 μM for 30 min) as described in the ***Materials and Methods***. Immunoprecipitation was performed with HepG2 cells treated with TG and DMSO followed by Western blotting analyses. Note that increased amount of RACK1 was presented in IRE1 immunoprecipitates treated with TG compared to DMSO-treated cells. In addition, AMPK in Thapsigargin-treated group is active based on pT172-AMPK antibody blotting. (**B**) Quantification of ***A*** from 3 independent experiments. Data were expressed as means ± SD, *, $p < 0.05$.

Supplementary Figure S4



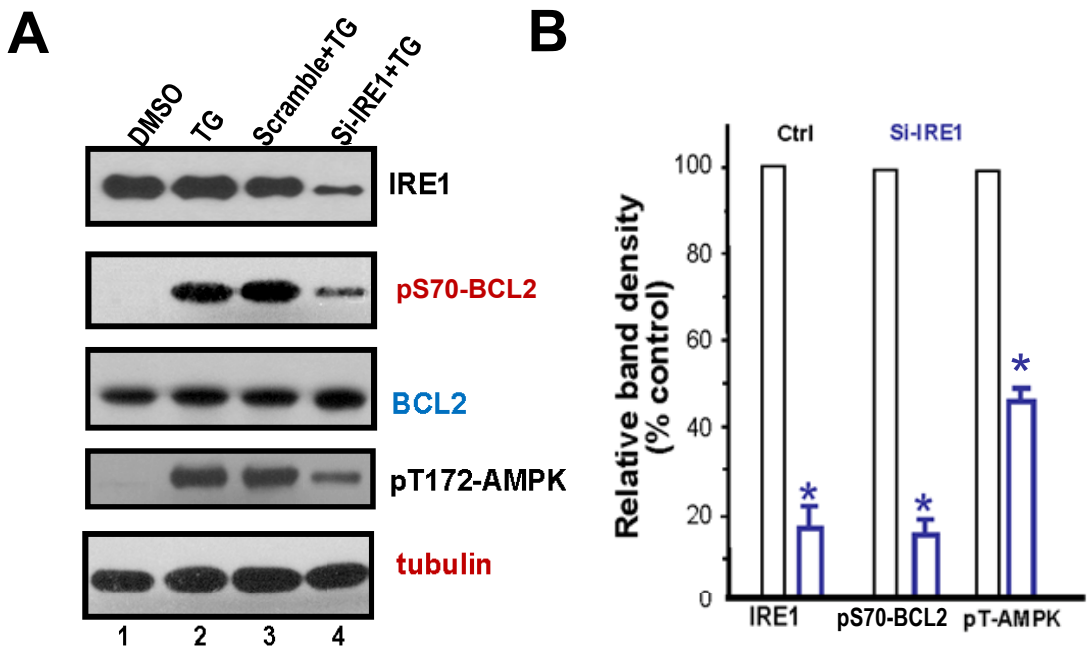
Supplementary Figure S4 | RACK1 interacts with IRE1. GST pull-down assay showed the interaction of RACK1 and the C-terminal part of IRE1. Upper panel: Coomassie brilliant blue (CBB) staining of different groups indicating GST tag protein, GST-IRE1C, and purified RACK1 protein. Lower panel: Western blot of RACK1 antibody showing the input and result of the GST pull-down assay.

Supplementary Figure S5



Supplementary Figure S5 | ER stress induced by TG treatment results in a co-localization of AMPK with IRE1. (**A**) Immunofluorescence of HepG2 cells stained with RACK1 and IRE1 after TG treatment (15 μM for 30 min) as described in the ***Materials and Methods***. Note that punctuate staining appears in TG-treated cells in which IRE1 and RACK1 signals are super-imposed (yellow). Scale bar, 10 μm. (**B**) Immunofluorescence of HepG2 cells stained with pT172-AMPK and IRE1 after TG treatment (15 μM for 30 min). Note that punctuate staining appears in TG-treated cells in which IRE1 and pT172-AMPK signals are super-imposed (yellow). Scale bar, 10 μm.

Supplementary Figure S6



Supplementary Figure S6 | ER stress preconditioning elicits BCL2 phosphorylation at Ser70 via IRE1. (**A**) Western blots of IRE1, BCL2, phospho-Ser70 BCL2, pT172-AMPK and tubulin in HepG2 cells exposed to TG and TG-treated but IRE1-suppressed cells. Note that pS70-BCL2 is a function of IRE1. (**B**) Quantification of ***A*** from 3 independent experiments. Data were expressed as means ± SD, *, $p < 0.05$.