SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-IRE1 antibody

Catalog Number: SL8680R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	IRE1
Immunogen:	KLH conjugated synthetic peptide derived from human IRE1a: 252-260/977
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P (1:100-500) IHC-F (1:100-500) IF (1:100-500) Not yet tested in other applications. Optimal working dilutions must be determined by the end user.
Reactivity:	Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Dog, Horse)
Predicted MW.:	105kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	The protein encoded by this gene is the ER to nucleus signalling 1 protein, a human homologue of the yeast Ire1 gene product. This protein possesses intrinsic kinase activity and an endoribonuclease activity and it is important in altering gene expression as a response to endoplasmic reticulum-based stress signals. [provided by RefSeq, Jul 2008] **Function:** Senses unfolded proteins in the lumen of the endoplasmic reticulum via its N-terminal domain which leads to enzyme auto-activation. The active endoribonuclease domain splices XBP1 mRNA to generate a new C-terminus, converting it into a potent unfolded-protein response transcriptional activator and triggering growth arrest and apoptosis. **Subunit:** Homodimer; disulfide-linked. Dimer formation is driven by hydrophobic interactions within the N-terminal luminal domains and stabilized by disulfide bridges. Also binds HSPA5, a negative regulator of the unfolded

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	protein response. This interaction may disrupt homodimerization and prevent activation of ERN1. Interacts with TAOK3 and TRAF2. **Subcellular Location:** Endoplasmic reticulum membrane. **Tissue Specificity:** Ubiquitously expressed. High levels observed in pancreatic tissue. **Post-translational modifications:** Autophosphorylated. **Similarity:** Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Contains 1 KEN domain. Contains 1 protein kinase domain. **Database links:** **Entrez Gene:** 2081 Human **Entrez Gene:** 78943 Mouse **Entrez Gene:** 498013 Rat Omim: 604033 Human **SwissProt:** O75460 Human **SwissProt:** Q9EQY0 Mouse **Unigene:** 133982 Human **Unigene:** 592041 Human **Unigene:** 700027 Human **Unigene:** 20452 Mouse **Unigene:** 340943 Mouse **Unigene:** 226435 Rat

[VALIDATION IMAGES]

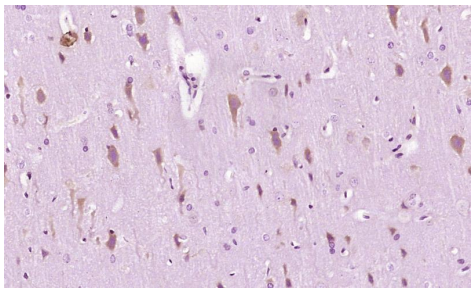


Figure 1. Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (IRE1) Polyclonal Antibody, Unconjugated (SL8680R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

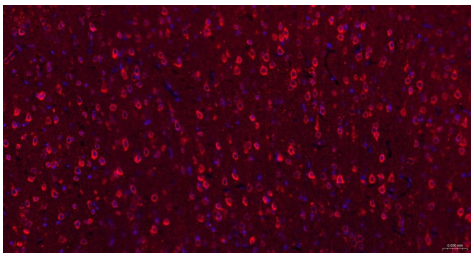


Figure 2. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

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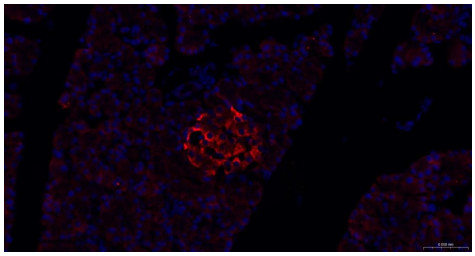


Figure 3. Paraformaldehyde-fixed, paraffin embedded Rat Pancreas; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

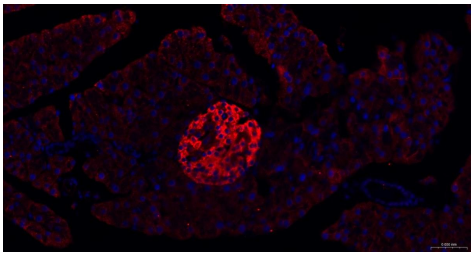


Figure 4. Paraformaldehyde-fixed, paraffin embedded Mouse Pancreas; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

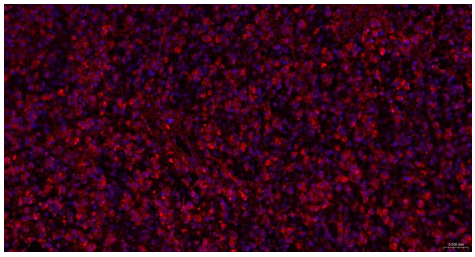


Figure 5. Paraformaldehyde-fixed, paraffin embedded Human Glioblastoma; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

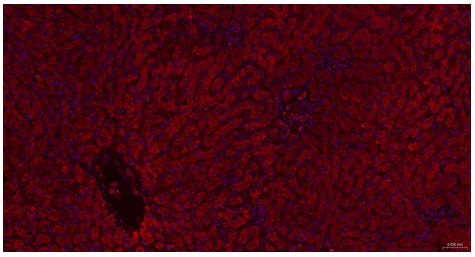


Figure 6. Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

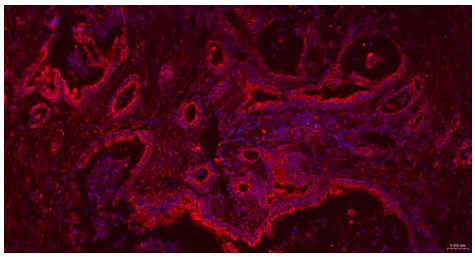


Figure 7. Paraformaldehyde-fixed, paraffin embedded Human Pancreatic Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with IRE1 Polyclonal Antibody, Unconjugated (SL8680R) at 1:200 overnight at 4°C. Followed by conjugated Goat Anti-Rabbit IgG antibody (Red, SL0295G-BF594), DAPI (blue, C02-04002) was used to stain the cell nuclei

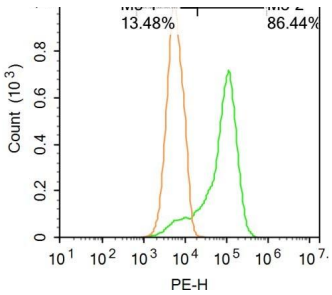


Figure 8. Blank control: Raji. Primary Antibody (green line): Rabbit Anti-IRE1 antibody (SL8680R) Dilution: 1μg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-PE Dilution: 1μg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

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