Best Tools for immunology Research

# IRE1α Monoclonal Antibody

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|---|---|
| **Catalog No :** | YM0381 |
| **Reactivity :** | Human |
| **Applications :** | WB;IHC;IF;ELISA |
| **Target :** | IRE1α |
| **Fields :** | >>Autophagy - animal;>>Protein processing in endoplasmic reticulum;>>Apoptosis;>>Non-alcoholic fatty liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Spinocerebellar ataxia;>>Pathways of neurodegeneration - multiple diseases;>>Lipid and atherosclerosis |
| **Gene Name :** | ERN1 |
| **Protein Name :** | Serine/threonine-protein kinase/endoribonuclease IRE1 |
| **Human Gene Id :** | 2081 |
| **Human Swiss Prot No :** | O75460 |
| **Mouse Swiss Prot No :** | Q9EQY0 |
| **Immunogen :** | Purified recombinant fragment of human IRE1α (aa282-433) expressed in E. Coli. |
| **Specificity :** | IRE1α Monoclonal Antibody detects endogenous levels of IRE1α protein. |
| **Formulation :** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source :** | Monoclonal, Mouse |
| **Dilution :** | WB 1:500 - 1:2000. IHC 1:200 - 1:1000. ELISA: 1:10000.. IF 1:50-200 |
| **Purification :** | Affinity purification |
| **Storage Stability :** | -15°C to -25°C/1 year(Do not lower than -25°C) |

**Molecularweight :** 110kD

**Cell Pathway :** Alzheimer's disease;

**P References :**
1. Biochem Biophys Res Commun. 2004 Apr 30;317(2):390-6.
2. Mol Cell Biol. 2005 Sep;25(17):7522-33.
3. Science. 2007 Nov 9;318(5852):944-9.

**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 :** catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:The kinase domain is activated by trans-autophosphorylation. Kinase activity is required for activation of the endoribonuclease domain.,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.,PTM:Autophosphorylated.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family.,similarity:Contains 1 KEN domain.,similarity:Contains 1 protein kinase domain.,subunit:Homodimer; disulfide-linked. Dimer formation is driven by hydrophobic interactions within the N-terminal luminal domains

**Subcellular Location :** Endoplasmic reticulum membrane ; Single-pass type I membrane protein .

**Expression :** Ubiquitously expressed. High levels observed in pancreatic tissue.

**Tag :** orthogonal

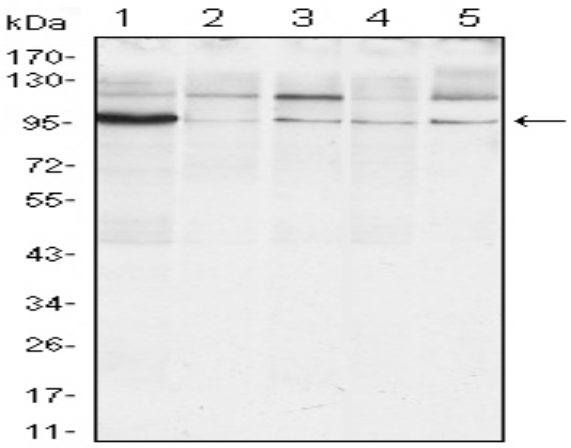
**Sort :** 1039

**No4 :** 1

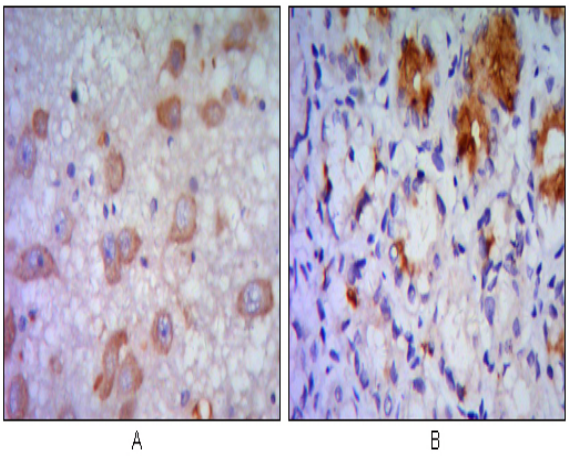
**Host :** Mouse

**Modifications :** Unmodified

## Products Images




Western Blot analysis using IRE1α Monoclonal Antibody against Raji (1), A431 (2), Jurkat (3), HeLa(4) and HEK293 (5) cell lysate.




Immunohistochemistry analysis of paraffin-embedded human brain tissue (A) and stomach tissue (B), showing cytoplasmic localization with DAB staining using IRE1α Monoclonal Antibody.