Best Tools for immunology Research

IRE1α Monoclonal Antibody

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.

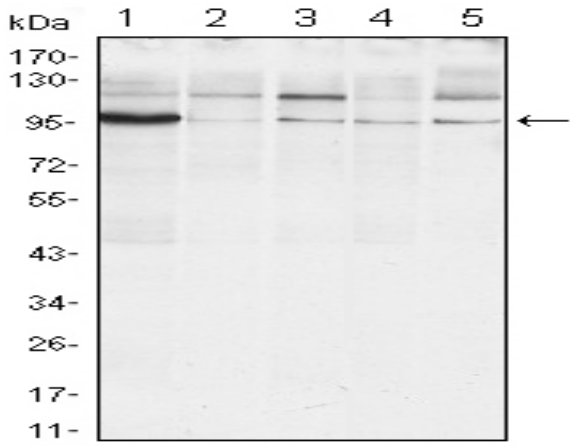
Background : The protein encoded by this gene is the ER to nucleus signalling 1 protein, a human homologue of the yeast Ire1 gene product. This protein possesses intrinsic kinase activity and an endoribonuclease activity and it is important in altering gene expression as a response to endoplasmic reticulum-based 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

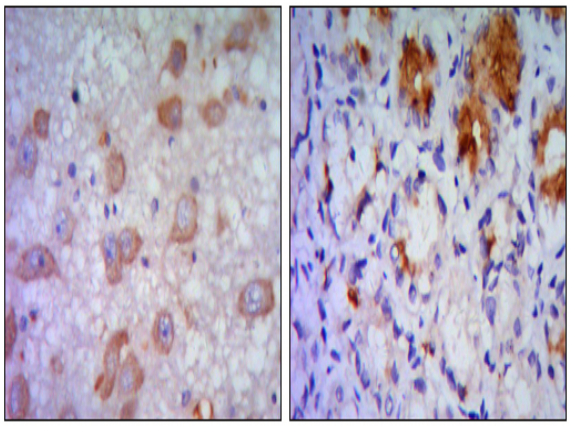
Subcellular Location : Endoplasmic reticulum membrane ; Single-pass type I membrane protein .

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

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.