

IRE1 α Monoclonal Antibody

Catalog No :	YM0381
Reactivity :	Human
Applications :	WB;IHC;IF;ELISA
Target :	IRE1 α
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 IRE1 α (aa282-433) expressed in E. Coli.
Specificity :	IRE1 α Monoclonal Antibody detects endogenous levels of IRE1 α 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.

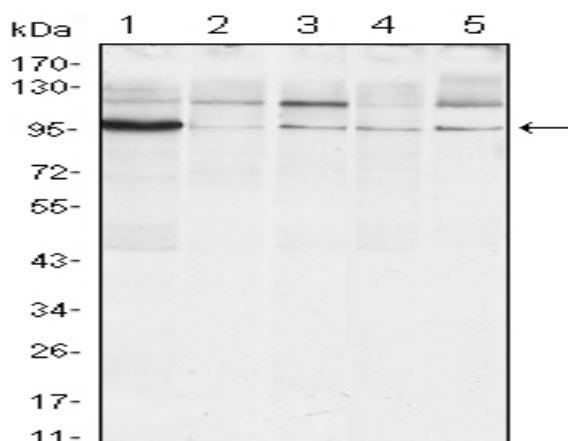
Background : The protein encoded by this gene is the ER to nucleus signalling 1 protein, a human homologue of the yeast Ire1 gene product. This protein possesses intrinsic kinase activity and an endoribonuclease activity and it is important in altering gene expression as a response to endoplasmic reticulum-based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

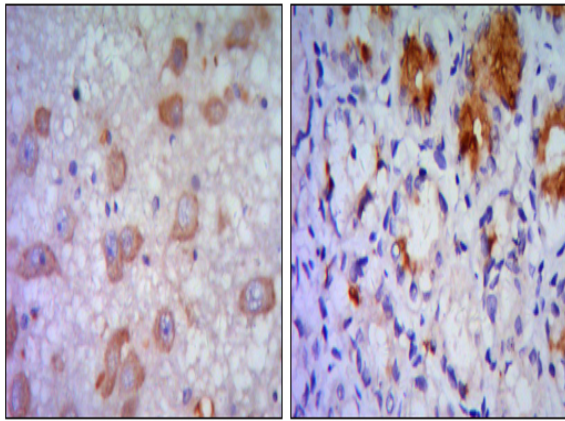
Subcellular Location : Endoplasmic reticulum membrane ; Single-pass type I membrane protein .

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.



A

B

Immunohistochemistry analysis of paraffin-embedded human brain tissue (A) and stomach tissue (B), showing cytoplasmic localization with DAB staining using IRE1 α Monoclonal Antibody.