IRE1α Mouse mAb

CatalogNo: YM0381 Orthogonal Validated

Key Features

Host Species
- Mouse

Reactivity
- Human

Applications
- WB,IHC,IF,ELISA

MW
- 110kD (Calculated)

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:200-1:1000
ELISA 1:10000
IF 1:50-200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Monoclonal

Immunogen Information

Immunogen	Purified recombinant fragment of human IRE1α (aa282-433) expressed in E. Coli.
Specificity	IRE1α Monoclonal Antibody detects endogenous levels of IRE1α protein.

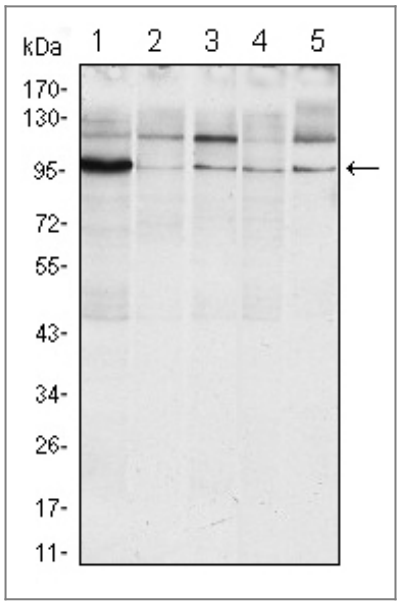
Target Information

Gene name	ERN1
Protein Name	Serine/threonine-protein kinase/endoribonuclease IRE1

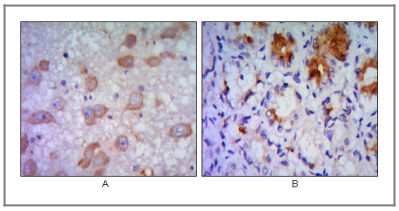
Organism	Gene ID	UniProt ID
Human	2081;	O75460;
Mouse		Q9EQY0;

Cellular Localization	Endoplasmic reticulum membrane ; Single-pass type I membrane protein .
Tissue specificity	Ubiquitously expressed. High levels observed in pancreatic tissue.
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 and stabilized by disulfide bridges. Also binds HSPA5, a negative regulator of the unfolded protein response. This interaction may disrupt homodimerization and prevent activation of ERN1.,tissue specificity:Ubiquitously expressed. High levels observed in pancreatic tissue.,

Validation Data



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.

Contact information

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Please scan the QR code to access additional product information:
IRE1α Mouse mAb