

Rabbit IRE1 Polyclonal Antibody | anti-IRE1 antibody

Phospho-IRE1 (Tyr628) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328324	Rabbit	Human, Mouse, RatPredicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus	ELISA, Immunohistochemistry, Western Blot

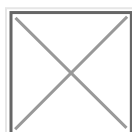
PRODUCT SYNONYMS

IRE1; Polyclonal Antibody; Phospho-IRE1 (Tyr628) Antibody; Endoplasmic reticulum (ER) to nucleus signalling 1; Endoplasmic reticulum to nucleus signaling 1; Endoplasmic reticulum-to-nucleus signaling 1; Endoribonuclease; ER to nucleus signaling 1; ERN 1; Ern1; ERN1_HUMAN; hIRE 1p; hIRE1p; Inositol requiring 1; S. cerevisiae; homolog of; Inositol requiring enzyme 1; Inositol requiring protein 1; inositol-requiring enzyme 1; Inositol-requiring protein 1; IRE 1; IRE 1a; IRE 1P; Ire1 alpha; Ire1-alpha; IRE1a; Ire1alpha; IRE1P; MGC163277; MGC163279; Protein kinase/endoribonuclease; RGD1559716; Serine/threonine protein kinase/endoribonuclease IRE1; anti-IRE1 antibody

PRODUCT SPECIFICATIONS

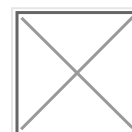
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted: Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-IRE1 (phospho Y628) Antibody detects endogenous levels of IRE1 only when phosphorylated at phospho Y628.
Purity/Purification	Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	977
Applicable Applications for anti-IRE1 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human IRE1 around the phosphorylation site of phospho Y628.
Tissue Specificity	Ubiquitously expressed. High levels observed in pancreatic tissue.
Subcellular Location	Endoplasmic Reticulum
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts of rat brain tissue sample, using Phospho-IRE1 (phospho Y628) Antibody.



IHC (Immunohistochemistry)

At 1/100 staining mouse brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining rat spleen tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

Related Product Information for anti-IRE1 antibody

Description: Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR) (PubMed:11779464, PubMed:11175748, PubMed:12637535, PubMed:9637683, PubMed:21317875). In unstressed cells, the endoplasmic reticulum luminal domain is maintained in its inactive monomeric state by binding to the endoplasmic reticulum chaperone HSPA5/BiP (PubMed:21317875). Accumulation of misfolded protein in the endoplasmic reticulum causes release of HSPA5/BiP, allowing the luminal domain to homodimerize, promoting autophosphorylation of the kinase domain and subsequent activation of the endoribonuclease activity (PubMed:21317875). The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA (PubMed:11779464, PubMed:24508390, PubMed:21317875). The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes (PubMed:11779464, PubMed:24508390, PubMed:21317875).

Post Translational Modifications: Autophosphorylated following homodimerization. Autophosphorylation promotes activation of the endoribonuclease domain. ADP-ribosylated by PARP16 upon ER stress, which increases both kinase and endonuclease activities.

Subunit Structure: Monomer (PubMed:29198525, PubMed:16973740). Homodimer; disulfide-linked; homodimerization takes place in response to endoplasmic reticulum stress and promotes activation of the kinase and endoribonuclease activities (PubMed:12637535, PubMed:24508390, PubMed:16973740, PubMed:21317875). Dimer formation is driven by hydrophobic interactions within the N-terminal luminal domains and stabilized by disulfide bridges (PubMed:12637535). Interacts (via the luminal region) with DNAJB9/ERdj4; interaction takes place in unstressed cells and promotes recruitment of HSPA5/BiP (PubMed:29198525). Interacts (via the luminal region) with HSPA5/BiP; HSPA5/BiP is a negative regulator of the unfolded protein response (UPR) that prevents homodimerization of ERN1/IRE1 and subsequent activation of the protein (PubMed:12637535, PubMed:29198525). Interacts with PDIA6, a negative regulator of the UPR; the interaction is direct and disrupts homodimerization (PubMed:24508390). Interacts with DAB2IP (via PH domain); the interaction occurs in an endoplasmic reticulum stress-induced dependent manner and is required for subsequent recruitment of TRAF2 to ERN1/IRE1 (By similarity). Interacts with TAOK3 and TRAF2 (PubMed:11278723).

Similarity: Belongs to the protein kinase superfamily. Ser/Thr protein kinase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	193806335
NCBI GeneID	2081
UniProt Accession #	O75460; Q76MJ5
Molecular Weight	Observed: 110 kDa Predicted: 110 kDa
NCBI Official Full Name	Serine/threonine-protein kinase/endoribonuclease IRE1
NCBI Official Synonym Full Names	endoplasmic reticulum to nucleus signaling 1
NCBI Official Symbol	ERN1
NCBI Official Synonym Symbols	IRE1; IRE1P; IRE1a; hIRE1p
NCBI Protein Information	serine/threonine-protein kinase/endoribonuclease IRE1
UniProt Protein Name	Serine/threonine-protein kinase/endoribonuclease IRE1

UniProt Gene Name	ERN1
UniProt Synonym Gene Names	hIRE1p; IRE1a
UniProt Entry Name	ERN1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/ire1-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/328324>