

Product datasheet for **TA306273**

IRE1 (ERN1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 0.5 - 2 ug/mL, ICC: 1 ug/mL, IF: 2 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	IRE1p antibody was raised against a 16 amino acid peptide from near the carboxy terminus of human IRE1p.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	endoplasmic reticulum to nucleus signaling 1
Database Link:	NP_001424 Entrez Gene 78943 Mouse Entrez Gene 498013 Rat Entrez Gene 2081 Human O75460



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Background:

Accumulation of malformed proteins in the endoplasmic reticulum (ER) activates the unfolded protein response (UPR) and the upregulation of the ER molecular chaperones GRP78 and GRP 94 (1,2). These proteins are normally bound to ER transmembrane proteins such as IRE1p and ATF6 (3,4) but ER stress causes their dissociation. This allows IRE1p, a serine-threonine protein kinase to transduce the unfolded protein signal from the ER to the nucleus. IRE1p also has an endoribonuclease activity that is required to splice X-box binding protein (XBP1) mRNA converting it to a potent UPR transcriptional activation (5). Depletion of IRE1p through the expression of a dominant negative form of IRE1p has no effect on transfected cells, but cell death via apoptosis occurs under stress conditions that cause unfolded proteins to accumulate in the ER (6). Two alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Synonyms:

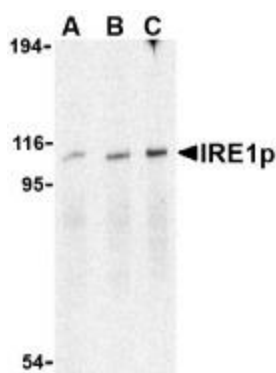
hIRE1p; IRE1; IRE1a; IRE1P

Protein Families:

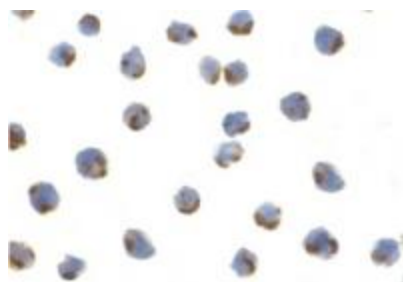
Protein Kinase, Transmembrane

Protein Pathways:

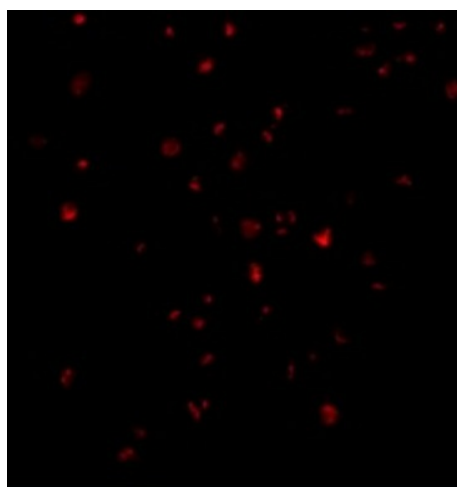
Alzheimer's disease

Product images:

Western blot analysis of IRE1p in A-20 cell lysate with IRE1p antibody at (A) 0.5, (B) 1 and (C) 2 ug/mL.



Immunocytochemistry of IRE1p in A-20 cells with IRE1p antibody at 1 ug/mL.



Immunofluorescence of IRE1p in A20 cells with IRE1p antibody at 2 ug/mL.