

Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody
Catalog # ABO13130**Specification****Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	O75460
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid

Description

Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human.

Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 2081

Other Names

Serine/threonine-protein kinase/endoribonuclease IRE1, Endoplasmic reticulum-to-nucleus signaling 1, Inositol-requiring protein 1, hIRE1p, Ire1-alpha, IRE1a, Serine/threonine-protein kinase, 2.7.11.1, Endoribonuclease, 3.1.26.-, ERN1 ([HGNC:3449](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=3449))

Calculated MW

109735 MW KDa

Application Details

WB 1:500-1:2000

Subcellular Localization

Endoplasmic reticulum membrane ; Single-pass type I membrane protein.

Tissue Specificity

Ubiquitously expressed. High levels observed in pancreatic tissue..

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human Phospho-IRE1 (S724)

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody - Protein Information

Name ERN1 ([HGNC:3449](#))

Function

Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR) (PubMed: [11175748](http://www.uniprot.org/citations/11175748), PubMed: [11779464](http://www.uniprot.org/citations/11779464), PubMed: [12637535](http://www.uniprot.org/citations/12637535), PubMed: [21317875](http://www.uniprot.org/citations/21317875), PubMed: [28128204](http://www.uniprot.org/citations/28128204), PubMed: [30118681](http://www.uniprot.org/citations/30118681), PubMed: [9637683](http://www.uniprot.org/citations/9637683), PubMed: [19328063](http://www.uniprot.org/citations/19328063)). 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](http://www.uniprot.org/citations/21317875)). Accumulation of misfolded proteins 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](http://www.uniprot.org/citations/21317875)). The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA (PubMed: [11779464](http://www.uniprot.org/citations/11779464), PubMed: [21317875](http://www.uniprot.org/citations/21317875), PubMed: [24508390](http://www.uniprot.org/citations/24508390)). The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes (PubMed: [11779464](http://www.uniprot.org/citations/11779464), PubMed: [21317875](http://www.uniprot.org/citations/21317875), PubMed: [24508390](http://www.uniprot.org/citations/24508390)). Acts as an upstream signal for ER stress-induced GORASP2-mediated unconventional (ER/Golgi-independent) trafficking of CFTR to cell membrane by modulating the expression and localization of SEC16A (PubMed: [21884936](http://www.uniprot.org/citations/21884936), PubMed: [28067262](http://www.uniprot.org/citations/28067262)).

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein

Tissue Location

Ubiquitously expressed. High levels observed in pancreatic tissue.

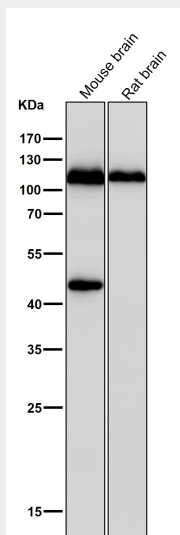
Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

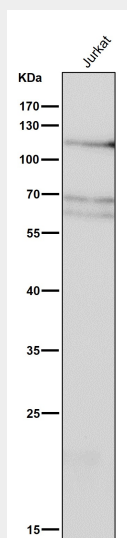
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

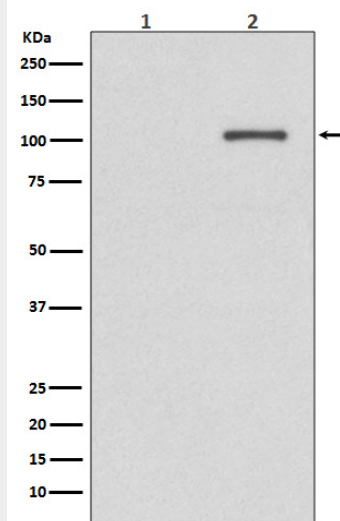
Anti-Phospho-IRE1 (S724) ERN1 Rabbit Monoclonal Antibody - Images



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of Phospho-IRE1 (S724) expression in (1) K562 cell lysate treated with AP; (2) Untreated K562 cell lysate.