

# Phospho-IRE1 (Ser724) Rabbit mAb

Catalog # AP76346

## Product Information

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Application	WB, IP
Primary Accession	<a href="#">O75460</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	109735

## Additional Information

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Gene ID	2081
Other Names	ERN1
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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Name	ERN1 ( <a href="#">HGNC:3449</a> )
Function	<p>Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR) (PubMed:<a href="#">11175748</a>, PubMed:<a href="#">11779464</a>, PubMed:<a href="#">12637535</a>, PubMed:<a href="#">19328063</a>, PubMed:<a href="#">21317875</a>, PubMed:<a href="#">28128204</a>, PubMed:<a href="#">30118681</a>, PubMed:<a href="#">36739529</a>, PubMed:<a href="#">9637683</a>). 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:<a href="#">21317875</a>). 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:<a href="#">21317875</a>). The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA (PubMed:<a href="#">11779464</a>, PubMed:<a href="#">21317875</a>, PubMed:<a href="#">24508390</a>). The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes (PubMed:<a href="#">11779464</a>, PubMed:<a href="#">21317875</a>, PubMed:<a href="#">24508390</a>). Acts as an upstream signal for ER stress-induced GORASP2-mediated unconventional (ER/Golgi-independent) trafficking of</p>

CFTR to cell membrane by modulating the expression and localization of SEC16A (PubMed:[21884936](#), PubMed:[28067262](#)).

**Cellular Location**

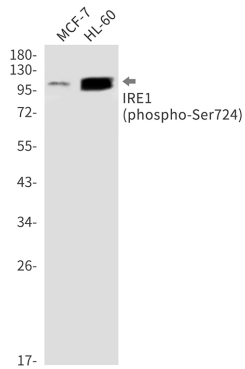
Endoplasmic reticulum membrane; Single-pass type I membrane protein

**Tissue Location**

Ubiquitously expressed. High levels observed in pancreatic tissue.

## Images

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