

Phospho-IRE1 (Ser724) Rabbit mAb

Catalog # AP76346

Product Information

Application	WB, IP
Primary Accession	O75460
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	109735

Additional Information

Gene ID	2081
Other Names	ERN1
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	Liquid

Protein Information

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

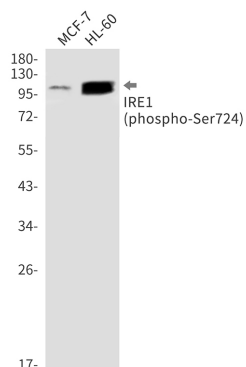
Function Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR) (PubMed:[11175748](#), PubMed:[11779464](#), PubMed:[12637535](#), PubMed:[19328063](#), PubMed:[21317875](#), PubMed:[28128204](#), PubMed:[30118681](#), PubMed:[36739529](#), PubMed:[9637683](#)). 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 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](#)). The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA (PubMed:[11779464](#), PubMed:[21317875](#), PubMed:[24508390](#)). The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes (PubMed:[11779464](#), PubMed:[21317875](#), PubMed:[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](#), 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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