

Product datasheet for **TA384188**

IRE1 (ERN2) Rabbit Monoclonal Antibody [Clone ID: R03-3I5]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R03-3I5
Applications:	WB
Recommended Dilution:	WB: 1/1000-1/5000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic phosphopeptide corresponding to residues surrounding Ser724 of human IRE1 (Phosphorylated)
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 110 kDa; Observed MW: 110 kDa
Gene Name:	endoplasmic reticulum to nucleus signaling 2
Database Link:	Entrez Gene 10595 Human O75460



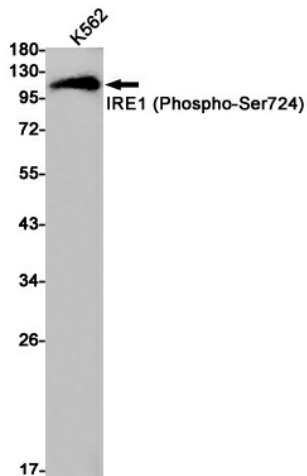
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Background:

Swiss-Prot Acc.O75460.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). 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).

Synonyms:

hIRE2p; Ire1-beta; IRE1b; IRE2

Product images:

Western blot analysis of IRE1 (Phospho-Ser724) in K562 lysates using Phospho-IRE1 (Ser724) antibody.