Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

IRE1 Antibody - Internal

Catalog No: tcaa49691

Available Sizes

Size: 100µl

Size: 200µl

Specifications

Research Area:
Apoptosis, Autophagy, Alzheimer's disease

Species Reactivity:
Human, Mouse, Rat

Conjugation:
unconjugated

Clonality:
Polyclonal

Storage Buffer:
Phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Concentration:
1 mg/ml

Recommended Dilution:
WB 1:1000-3000
IF/ICC 1:200-1:500
IHC 1:50-1:200
ELISA(peptide) 1:20000-1:40000

Source:
Rabbit

Tested Application:
WB,IHC,IF/ICC,ELISA

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Storage Instruction:
Store at -20 °C.Stable for 12 months

Alternative Names:
Endoplasmic reticulum (ER) to nucleus signalling 1; Endoplasmic reticulum to nucleus signaling 1; Endoplasmic reticulum-to-nucleus signaling 1; Endoribonuclease; ER to nucleus signaling 1; ERN 1; Ern1; ERN1_HUMAN; hIRE 1p; hIRE1p; Inositol requiring 1; Inositol requiring 1, S. cerevisiae, homolog of; Inositol requiring enzyme 1, S. cerevisiae, homolog of; Inositol requiring protein 1; inositol-requiring enzyme 1; Inositol-requiring protein 1; IRE 1; IRE 1a; IRE 1P; Ire1 alpha; Ire1-alpha; IRE1a; Ire1alpha; IRE1P; MGC163277; MGC163279; Protein kinase/endoribonuclease; RGD1559716; Serine/threonine protein kinase/endoribonuclease IRE1

SwissProt:
O75460

Predicted Molecular Weight:
110kD

Observed Molecular Weight:
110kD

Sequence:
MPARRLLLLLTLLLPGLGIFGSTSTVTLPETLLFVSTLDGSLHAVSKRTGSIKWTLKEDPVLQVPTHVEEPAFLPDPNDGSLYTLGSKNNEG
LTKLPFTIPELVQASPCRSSDGILYMGKKQDIWYVIDLLTGEKQQTLSSAFADSLCPSTSLLYLGRTEYTITMYDTKTRELRWNATYFDYAA
SLPEDDVDYKMSHFVSNGDGLVVTVDSESGDVLWIQNYASPVVAFYVWQREGLRKVMHINVAVETLRYLTFMSGEVGRITKWKYPFPK
ETEAKSKLTPTLYVGKYSTSLYASPSMVHEGVAVVPRGSTLPLLEGPQTDGVTIGDKGECVITPSTDVKFDPGLKSKNKLNYLRNYWLLIG
HHETPLSASTKMLERFPNNLPKHRENVIPADSEKKSFEEVINLVDQTSENAPTTVSRDVEEKPAHAPARPEAPVDSMLKDMATIILSTFLLI
GWVAFIITYPLSMHQQQQLQHQQFQKELEKIQLLQQQQQQLPFHPPGDTAQDGELLDTSGPYSESSGTSSPSTSPRASNHSLCSGSSAS
KAGSSPSLEQDDGDEETSVVIVGKISFCPKDVLGHGAEGTIVYRGMFDNRDVAVKRILPECFSFADREVQLLRESDEHPNVIRYFCTEKD
RQFQYIAIELCAATLQEYVEQKDFAHLGLEPITLLQQTTSGLAHLHSLNIVHRDLKPHNILISMPNAHGKIKAMISDFGLCKKLAVGRHSFSR
RSGVPGTEGWIAPEMLSEDCKENPTYTVDIFSAGCVFYYVISEGSHPFGKSLQRQANILLGACSLDCLHPEKHEDVIARELIEKMIAMDPQ
KRPSAKHVLKHPFFWSLEKQLQFFQDVSDRIEKESLDGPIVKQLERGGRAVVKMDWRENITVPLQTDLRKFRTYKGGSVRDLLRAMRNK
KHHYRELPAEVRETLGSLPDDFVCYFTSRFPHLLAHTYRAMELCSHERLFQPYYFHEPPEPQPPVTPDAL

Purification:
Affinity chromatography

Positive Control:
High levels observed in pancreatic tissue

Cellular Location:
Endoplasmic reticulum membrane>Single-pass type I membrane protein

Modification:
Autophosphorylated following homodimerization. Autophosphorylation promotes activation of the endoribonuclease

domain. ADP-ribosylated by PARP16 upon ER stress, which increases both kinase and endonuclease activities.

Notes

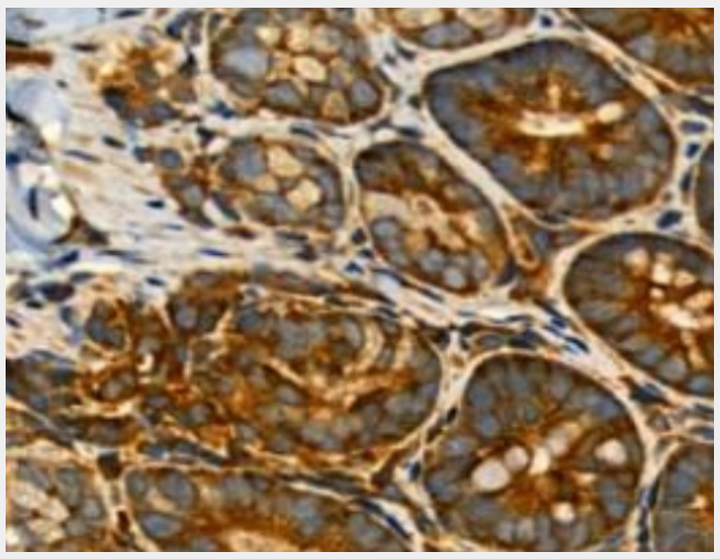
Tissue Specificity: Ubiquitously expressed. High levels observed in pancreatic tissue.

Product Description

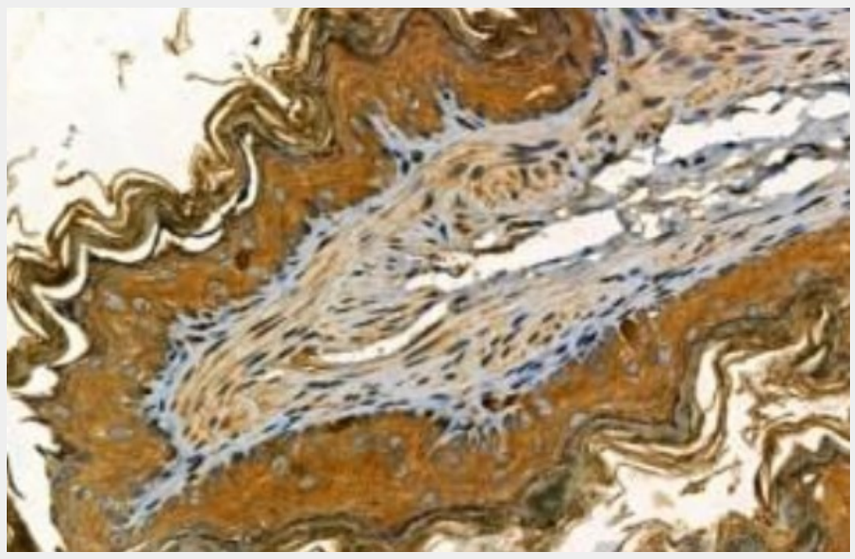
Function of IRE 1：Serine/threonine-protein kinase and endoribonuclease that acts as a key sensor for the endoplasmic reticulum unfolded protein response (UPR). In unstressed cells, the endoplasmic reticulum luminal domain is maintained in its inactive monomeric state by binding to the endoplasmic reticulum chaperone HSPA5/BiP. 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. The endoribonuclease activity is specific for XBP1 mRNA and excises 26 nucleotides from XBP1 mRNA. The resulting spliced transcript of XBP1 encodes a transcriptional activator protein that up-regulates expression of UPR target genes. 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.

IRE1 Antibody detects endogenous levels of total IRE1.

Similarity: Belongs to the protein kinase superfamily. Ser/Thr protein kinase family.



IRE1 Antibody at 1/100 staining Rat colon tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IRE1 Antibody at 1/100 staining Mouse stomach tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

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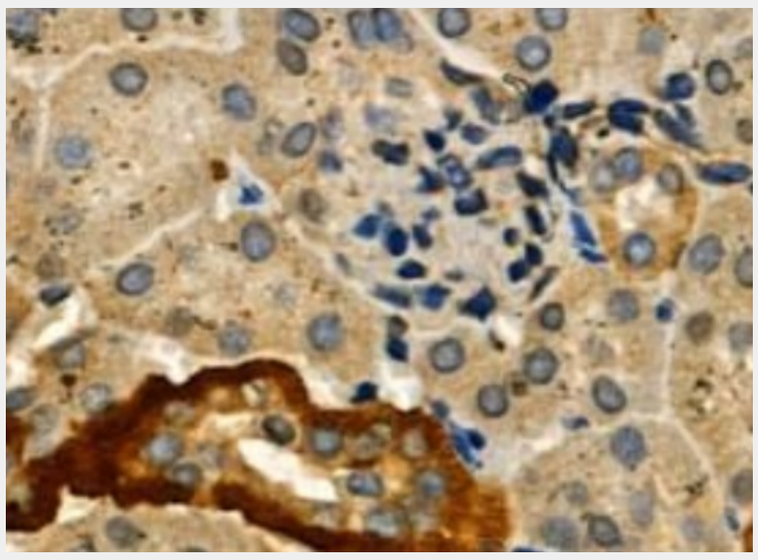
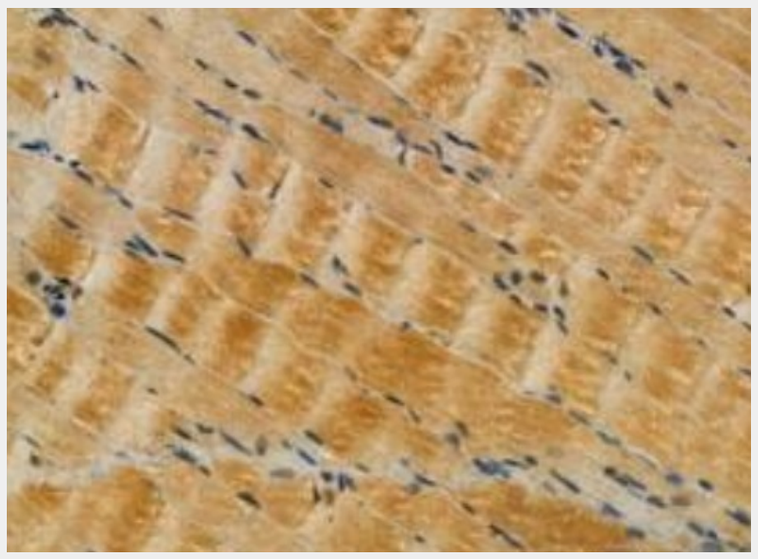
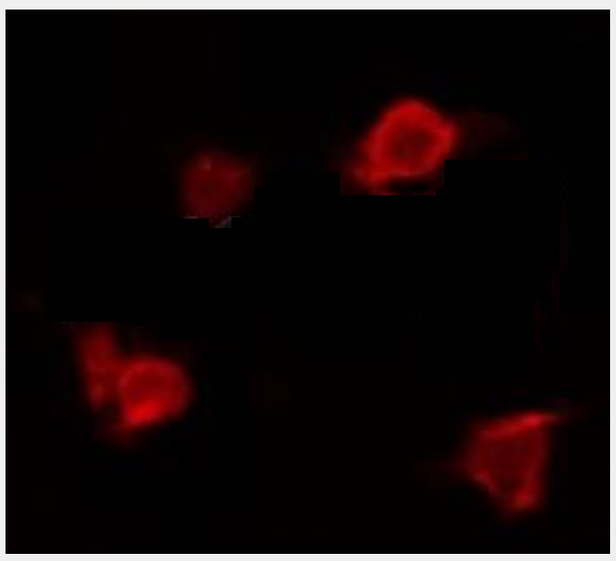


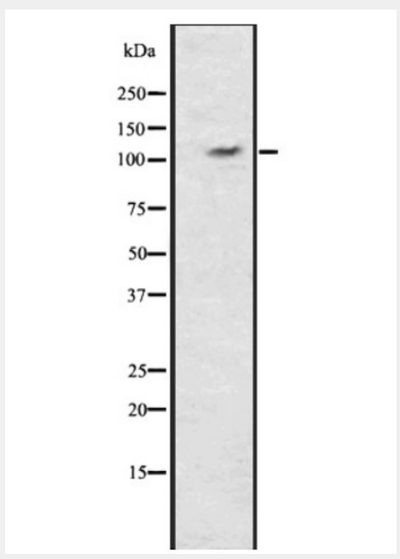
IRE1 Antibody at 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IRE1 Antibody at 1/100 staining Rat muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IRE1 Antibody staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western blot analysis of IRE1 using COLO205 whole lysates.

All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!