BOSTER BIOLOGICAL TECHNOLOGY
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Anti-IRE1/ERN1 Antibody

Catalog Number: A00683-2

About ERN1

The serine/threonine-protein kinase/endoribonuclease inositol-requiring enzyme 1 (IRE1) is an enzyme that in humans is encoded by the ERN1 gene. This gene encodes the transmembrane protein kinase inositol-requiring enzyme 1. The encoded protein contains two functional catalytic domains, a serine/threonine-protein kinase domain and an endoribonuclease domain. This protein functions as a sensor of unfolded proteins in the endoplasmic reticulum (ER) and triggers an intracellular signaling pathway termed the unfolded protein response (UPR). The UPR is an ER stress response that is conserved from yeast to mammals and activates genes involved in degrading misfolded proteins, regulating protein synthesis and activating molecular chaperones. This protein specifically mediates the splicing and activation of the stress response transcription factor X-box binding protein 1.

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Overview

Product Name	Anti-IRE1/ERN1 Antibody
Reactive Species	Human
Description	Boster Bio Anti-IRE1/ERN1 Antibody catalog # A00683-2. Tested in WB, IHC, ELISA applications. This antibody reacts with Human.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg stabilizing protein and 50% glycerol *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	12 months from date of receipt□-20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	O75460

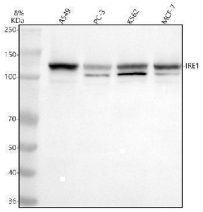
Technical Details

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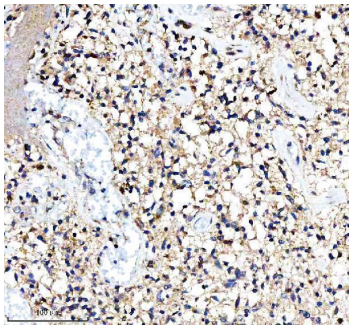
Immunogen	E.coli-derived human IRE1/ERN1 recombinant protein (Position: S370-G567).
Form	Liquid
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-400 ELISA, 1:100-1000

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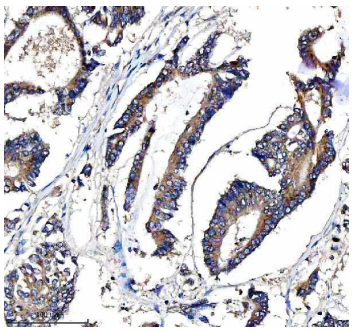
Anti-IRE1/ERN1 Antibody (A00683-2) Images



Western blot analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human PC-3 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human MCF-7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IRE1/ERN1 antigen affinity purified polyclonal antibody (A00683-2) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for IRE1/ERN1 at approximately 120 kDa. The expected band size for IRE1/ERN1 is at 110 kDa.



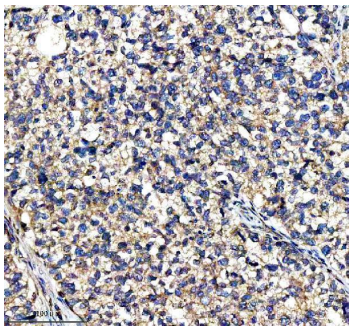
IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



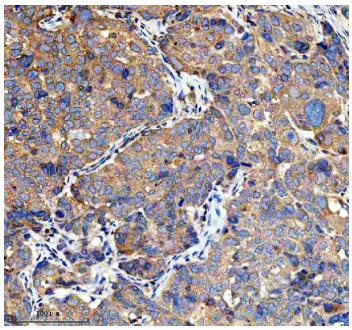
IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human non-small-cell lung cancer tissue. Heat

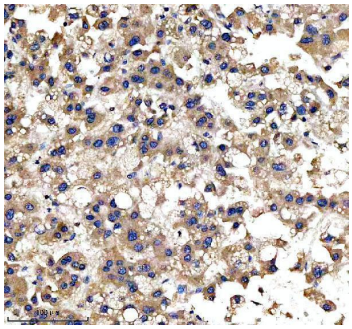
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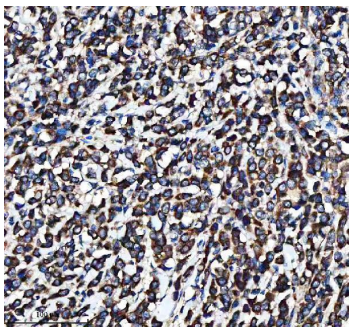
mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of IRE1/ERN1 using anti-IRE1/ERN1 antibody (A00683-2). IRE1/ERN1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-IRE1/ERN1 Antibody (A00683-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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