Product Datasheet

IRE1 alpha Antibody
NB100-2324SS

Unit Size: 0.025 ml

Store at -20C. Avoid freeze-thaw cycles.

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Publications: 10

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NB100-2324SS

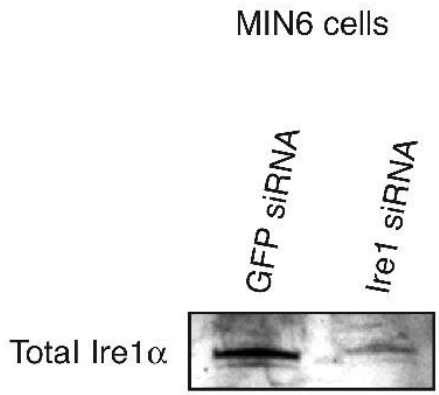
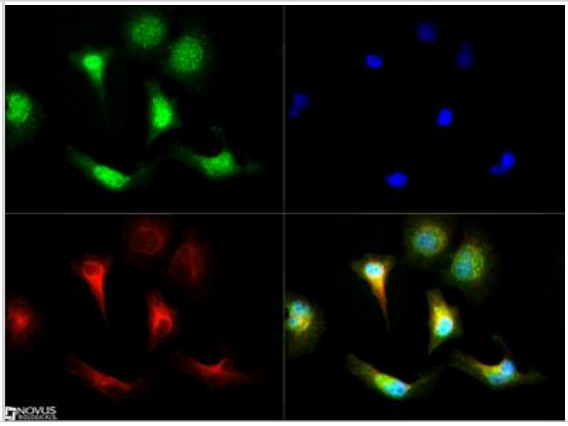
IRE1 alpha Antibody

Product Information	
Unit Size	0.025 ml
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Purity	Immunogen affinity purified
Buffer	Tris-glycine, 150 mM NaCl
Target Molecular Weight	110 kDa

Product Description	
Host	Rabbit
Gene ID	2081
Gene Symbol	ERN1
Species	Human, Mouse, Rat, Primate (Negative)
Species Reactivity	Human, mouse, and rat. Does not react with monkey.
Immunogen	A synthetic peptide within the human IRE1 alpha protein (within residues 700-800). [Swiss-Prot #O75460]

Product Application Details	
Applications	Western Blot, Immunocytochemistry/Immunofluorescence
Recommended Dilutions	Immunocytochemistry/Immunofluorescence 1:100 - 1:250, Western Blot 1:1000-1:2000
Application Notes	This IRE1 alpha antibody is useful for Western blot, where a band ~110 kDa is observed. In ICC/IF endoplasmic reticulum staining was observed in HeLa cells.

Images

Western Blot: IRE1 alpha Antibody [NB100-2324] - Detection of Ire1 alpha in transfected Min6 cells.	
Immunocytochemistry/Immunofluorescence: IRE1 alpha Antibody [NB100-2324] - IRE1 alpha antibody was tested in HepG2 cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).	

Publications

Wu Y, Yang M, Fan J et al. Deficiency of osteoblastic Arl6ip5 impaired osteoblast differentiation and enhanced osteoclastogenesis via disturbance of ER calcium homeostasis and induction of ER stress-mediated apoptosis. Cell Death Dis. 2014 Oct 17 [PMID: 25321471] (WB, Mouse)

Ghosh Ak, Garg Sk, Mau T et al. Elevated Endoplasmic Reticulum Stress Response Contributes to Adipose Tissue Inflammation in Aging. J. Gerontol. A Biol. Sci. Med. Sci. 2014 Oct 16 [PMID: 25324219] (WB, Mouse)

Liu L, Fan Z, Tang Y, Ke Z. The Resveratrol Attenuates Ethanol-Induced Hepatocyte Apoptosis Via Inhibiting ER-Related Caspase-12 Activation and PDE Activity In Vitro. Alcohol Clin Exp Res. 2013 Nov 13 [PMID: 24224909] (WB, Human)

Zheng M, Zhang Q, Joe Y et al. Carbon Monoxide Releasing Molecules Reverse Leptin Resistance Induced by Endoplasmic Reticulum Stress. Am J Physiol Endocrinol Metab 2013 Feb 12 [PMID: 23403944] (WB, Human, Mouse)

Arshad M, Ye Z, Gu X et al. RNF13, a RING Finger Protein, Mediates Endoplasmic Reticulum Stress-induced Apoptosis through the Inositol-requiring Enzyme (IRE1alpha)/c-Jun NH2-terminal Kinase Pathway. J Biol Chem 2013 Mar 22 [PMID: 23378536] (WB, Human)

Lipson, KL et al. Regulation of insulin biosynthesis in pancreatic beta cells by an endoplasmic reticulum-resident protein kinase IRE1. Cell Metab;4(3):245-54. 2006 Sep. [PMID: 16950141] (WB, Mouse)

Luo D, He Y, Zhang H et al. AIP1 is critical in transducing IRE1-mediated endoplasmic reticulum stress response. J Biol Chem;283(18):11905-12. 2008 May 2. [PMID: 18281285] (WB, Mouse)

Kurata M, Yamazaki Y, Kanno Y et al. Anti-apoptotic function of Xbp1 as an IL-3 signaling molecule in hematopoietic cells. Cell Death and Dis. 2011 Feb 10. [PMID: 21368889] (WB, Mouse)

Fonesca, SG et al. WFS1 is a novel component of the unfolded protein response and maintains homeostasis of the endoplasmic reticulum in pancreatic beta-cells. J Biol Chem280(47):39609-15. 2005 Nov 25. [PMID: 16195229]

Kubota, K et al. Fluoride induces endoplasmic reticulum stress in ameloblasts responsible for dental enamel formation. J Biol Chem;280(24):23194-202. 2005 Jun 17. [PMID: 15849362]

Procedures

ICC/IF Protocol for IRE1 alpha Antibody (NB100-2324)
Immunocytochemistry Protocol

Culture cells to appropriate density on suitable glass coverslips in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 5-10 minutes.
2. Remove the formalin and add 0.5% Triton-X 100 in TBS to permeabilize the cells. Incubate for 5-10 minutes.
3. Remove the permeabilization buffer and add wash buffer (i.e. PBS or PBS with 0.1% Tween-20). Be sure to not let the specimen dry out. Gently wash three times for 10 minutes.
4. Alternatively, cells can be fixed with -20C methanol for 10 min at room temperature. Remove the methanol and rehydrate in PBS for 10 min before proceeding.
5. To block nonspecific antibody binding incubate in 10% normal goat serum for 1 hour at room temperature.
6. Add primary antibody at appropriate dilution and incubate at room temperature for 1 hour or at 4 degrees C overnight.
7. Remove primary antibody and replace with wash buffer. Gently wash three times for 10 minutes.
8. Add secondary antibody at the appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove antibody and replace with wash buffer. Gently wash three times for 10 minutes.
10. Nuclei can be staining with 4',6' diamino phenylindole (DAPI) at 0.1 ug/ml, or coverslips can be directly mounted in media containing DAPI.
11. Cells can now be viewed with a fluorescence microscope.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow proper laboratory procedures for the disposal of formalin.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.