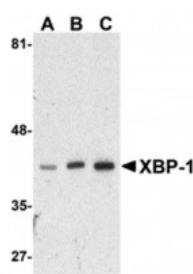


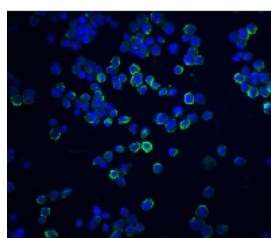


XBP-1 Antibody

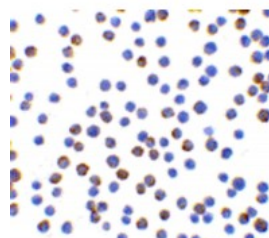
CATALOG NUMBER: 3687



Western blot analysis of XBP-1 in HepG2 cell lysate with XBP-1 antibody at (A) 0.5, (B) 1 and (C) 2 ug/mL.



Immunofluorescence of XBP-1 in HepG2 cells with XBP-1 antibody at 20 ug/mL.



Immunocytochemistry of XBP-1 in HepG2 cells with XBP-1 antibody at 10 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Rat: (100%)
TESTED APPLICATIONS:	ELISA, ICC, IF, WB
APPLICATIONS:	XBP-1 antibody can be used for the detection of XBP-1 by Western blot at 0.5 - 2 ug/mL. Antibody can also be used for immunocytochemistry starting at 10 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1211 - HepG2 Cell Lysate
IMMUNOGEN:	XBP-1 antibody was raised against an 18 amino acid synthetic peptide from near the amino terminus of human XBP-1. The immunogen is located within amino acids 40 - 90 of XBP-1.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	XBP-1 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	XBP-1 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	XBP-1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	XBP-1 Antibody: XBP2, TREB5, XBP-1, XBP2, X-box-binding protein 1, Tax-responsive element-binding protein
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ACCESSION NO.:	P17861
PROTEIN GI NO.:	60416406
OFFICIAL SYMBOL:	XBP1
GENE ID:	7494

Background

BACKGROUND: XBP-1 Antibody: X box binding protein 1 (XBP-1) is a key protein in the mammalian unfolded protein response (UPR) that protects the cell against the stress of misfolded proteins in the endoplasmic reticulum (ER). Upon sensing unfolded proteins, an ER transmembrane endonuclease and kinase termed IRE1p is activated and excises an intron from XBP-1 mRNA. The spliced XBP-1 mRNA results in a 371 amino acid protein (XBP-1s) which is then translocated to the nucleus where it binds to the regulatory elements of downstream genes. Together with other UPR transcription factors such as ATF6, XBP-1 stimulates the production of ER stress proteins including the ER resident protein chaperones glucose regulated protein (GRP) 78 and GRP94.

REFERENCES:

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- 2) Calton M, Zeng H, Urano F, et al. IRE1 couples endoplasmic reticulum load to secretory capacity by processing the XBP-1 mRNA. *Nature* 2002; 415:92-6.
- 3) Haze K, Yoshida H, Yanagi H, et al. Mammalian transcription factor ATF6 is synthesized as a transmembrane protein and activated by proteolysis in response to endoplasmic stress. *Mol. Cell. Biol.* 1999; 19:3787-99.
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FOR RESEARCH USE ONLY

December 13, 2016