XBP1 monoclonal antibody, clone 3H1G4

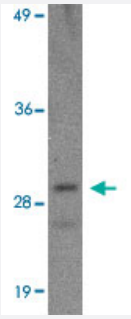
Catalog # MAB7873 Size 100 ug

Applications



Immunocytochemistry

Immunocytochemistry of XBP1 in HepG2 cells with XBP1 monoclonal antibody, clone 3H1G4 (Cat # MAB7873) at 2 ug/mL .



Western Blot (Recombinant protein)

Western blot analysis of 100 ng of XBP1 recombinant protein with XBP1 monoclonal antibody, clone 3H1G4 (Cat # MAB7873) at 1 ug/mL .

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant XBP1.
Immunogen	Recombinant protein corresponding to amino acids 2-160 of human XBP1.
Host	Mouse
Reactivity	Human, Mouse, Rat
Form	Liquid
Recommend Usage	Western Blot (0.5 ug/mL) The optimal working dilution should be determined by the end user.

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Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store at 4°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunocytochemistry

  Immunocytochemistry of XBP1 in HepG2 cells with XBP1 monoclonal antibody, clone 3H1G4 (Cat # MAB7873) at 2 ug/mL .

- Enzyme-linked Immunoabsorbent Assay

- Western Blot (Recombinant protein)

  Western blot analysis of 100 ng of XBP1 recombinant protein with XBP1 monoclonal antibody, clone 3H1G4 (Cat # MAB7873) at 1 ug/mL .

Gene Info — XBP1

Entrez GeneID	7494
Protein Accession#	BAB82982
Gene Name	XBP1
Gene Alias	TREB5, XBP2
Gene Description	X-box binding protein 1
Omim ID	125480 194355
Gene Ontology	Hyperlink

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Gene Summary	This gene encodes a transcription factor that regulates MHC class II genes by binding to a promoter element referred to as an X box. This gene product is a bZIP protein, which was also identified as a cellular transcription factor that binds to an enhancer in the promoter of the T cell leukemia virus type 1 promoter. It may increase expression of viral proteins by acting as the DNA binding partner of a viral transactivator. It has been found that upon accumulation of unfolded proteins in the endoplasmic reticulum (ER), the mRNA of this gene is processed to an active form by an unconventional splicing mechanism that is mediated by the endonuclease inositol-requiring enzyme 1 (IRE1). The resulting loss of 26 nt from the spliced mRNA causes a frame-shift and an isoform XBP1(S), which is the functionally active transcription factor. The isoform encoded by the unspliced mRNA, XBP1(U), is constitutively expressed, and thought to function as a negative feedback regulator of XBP1(S), which shuts off transcription of target genes during the recovery phase of ER stress. A pseudogene of XBP1 has been identified and localized to chromosome 5. [provided by RefSeq
Other Designations	OTTHUMP00000028682|X-box-binding protein-1

Publication Reference

- IRE1 couples endoplasmic reticulum load to secretory capacity by processing the XBP-1 mRNA.

  Calfon M, Zeng H, Urano F, Till JH, Hubbard SR, Harding HP, Clark SG, Ron D.

  Nature 2002 Jan; 415(6867):92.

  Application: WB, Mouse , MEF, Mouse fibroblasts

- XBP1 mRNA is induced by ATF6 and spliced by IRE1 in response to ER stress to produce a highly active transcription factor.

  Yoshida H, Matsui T, Yamamoto A, Okada T, Mori K.

  Cell 2001 Dec; 107(7):881.

  Application: WB-Ce, WB-Tr, Human, HeLa cells

- Mammalian transcription factor ATF6 is synthesized as a transmembrane protein and activated by proteolysis in response to endoplasmic reticulum stress.

  Haze K, Yoshida H, Yanagi H, Yura T, Mori K.

  Molecular Biology of the Cell 1999 Nov; 10(11):3787.

Disease

- Amphetamine-Related Disorders
- Arousal
- Atherosclerosis
- Bipolar Disorder

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- Depressive Disorder
- Genetic Predisposition to Disease
- Hyperhomocysteinemia
- IgA Deficiency
- Ischemia
- Kidney Failure
- Lung Neoplasms
- Obesity
- Personality Assessment
- Psychiatric Status Rating Scales
- Pulmonary Disease
- Schizophrenia
- Stress
- Stroke
- Urinary Bladder Neoplasms
- Vitiligo
- Werner syndrome

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