Product datasheet

Anti-XBP1 Antibody

Catalog Number: *PB9463*

BOSTER
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Basic Information

Product Name	Anti-XBP1 Antibody
Gene Name	XBP1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, FCM, ICC/IF
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human XBP1, identical to the related mouse and rat sequences.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	29 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry: 1:50-400 Flow Cytometry (Fixed): 1:50-200 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

XBP1, also known as X-box binding protein 1, is a protein which in humans is encoded by the XBP1 gene. It 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

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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.

Reference

Anti-XBP1 Antibody被引用在7文献中。

Selected Validation Data

Western blot analysis of XBP1 using anti-XBP1 antibody (PB9463). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: MCF-7 whole cell lysates,
Lane 2: MM231 whole cell lysates,
Lane 3: MM453 whole cell lysates,
Lane 4: SKOV whole cell lysates,
Lane 5: HELA whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-XBP1 antigen affinity purified polyclonal antibody (PB9463) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for XBP1 at approximately 29 kDa. The expected band size for XBP1 is at 29 kDa.

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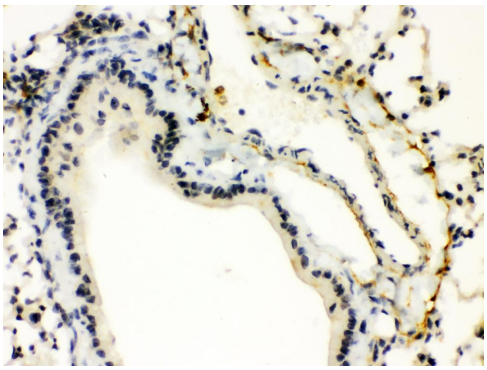
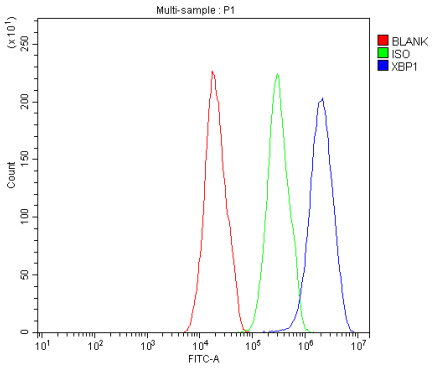
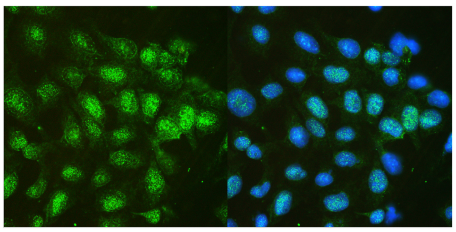


IHC analysis of XBP1 using anti-XBP1 antibody (PB9463).
XBP1 was detected in a paraffin-embedded section of mouse lung tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-XBP1 Antibody (PB9463) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of HepG2 cells using anti-XBP1 antibody (PB9463).
Overlay histogram showing HepG2 cells stained with PB9463 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-XBP1 Antibody (PB9463) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



ICC/IF analysis of XBP1 using anti-XBP1 antibody (PB9463). XBP1 was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) rabbit anti-XBP1 Antibody (PB9463). Fluoro 488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.