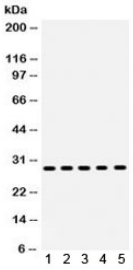
XBP1 Antibody (R31989)

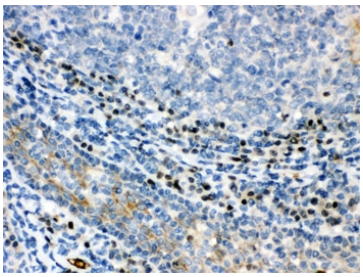
Catalog No.	Formulation	Size
R31989	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

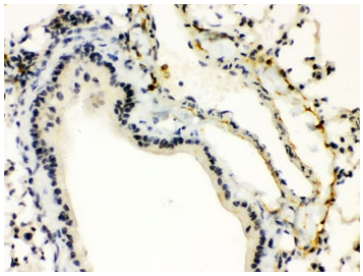
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P17861
Localization	Cytoplasmic, membrane
Applications	Western Blot : 0.1-0.5ug/ml IHC (FFPE) : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This XBP1 antibody is available for research use only.



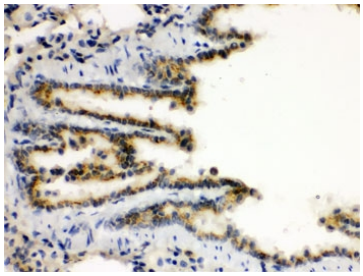
Western blot testing of human 1) MCF7, 2) MM231, 3) MM453, 4) SKOV and 5) HeLa lysate with XBP1 antibody. Expected/observed molecular weight ~29/40 kDa (isoform 1/2).



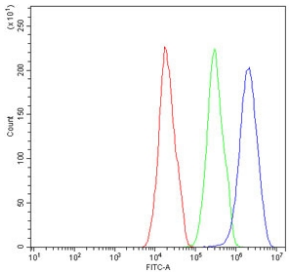
IHC testing of FFPE human tonsil with XBP1 antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



IHC testing of FFPE mouse lung with XBP1 antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



IHC testing of FFPE rat lung with XBP1 antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



Flow cytometry testing of human HepG2 cells with XBP1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= XBP1 antibody.

Description

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 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.

Application Notes

Optimal dilution of the XBP1 antibody should be determined by the researcher.

Immunogen

Amino acids RKRQRLTHLSPEEKALRRKLKNRVAAQ of human XBP1 were used as the immunogen for the XBP1 antibody.

Storage

After reconstitution, the XBP1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.