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XBP1 Antibody (monoclonal) (M04)

Mouse monoclonal antibody raised against a partial recombinant XBP1.
Catalog # AT4550a

Product Information

Application	WB
Primary Accession	P17861
Other Accession	BC012841
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	4E5
Calculated MW	28695

Additional Information

Gene ID	7494
Other Names	X-box-binding protein 1, XBP-1, Tax-responsive element-binding protein 5, XBP1, TREB5, XBP2
Target/Specificity	XBP1 (AAH12841, 123 a.a. ~ 225 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	XBP1 Antibody (monoclonal) (M04) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

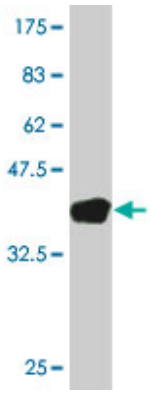
This gene encodes a transcription factor that regulates MHC class II genes by binding to a promoter element referred to as an X box. This gene product is a bZIP protein, which was also identified as a cellular transcription factor that binds to an enhancer in the promoter of the T cell leukemia virus 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.

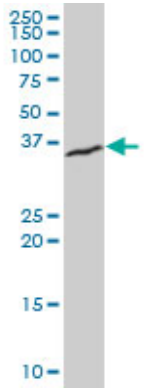
References

XBP1s levels are implicated in the biology and outcome of myeloma mediating different clinical outcomes to thalidomide-based treatments. Bagratuni T, et al. Blood, 2010 Jul 15. PMID 20421453.Induction of the unfolded protein response and cell death pathway in Alzheimer's disease, but not in aged Tg2576 mice. Lee JH, et al. Exp Mol Med, 2010 May 31. PMID 20368688.Evaluation of a combinatorial cell engineering approach to overcome apoptotic effects in XBP-1(s) expressing cells. Becker E, et al. J Biotechnol, 2010 Apr 15. PMID 19958799.Direct proteasome binding and subsequent degradation of unspliced XBP-1 prevent its intracellular aggregation. Navon A, et al. FEBS Lett, 2010 Jan 4. PMID 19941857.From sugar to fat: How the transcription factor XBP1 regulates hepatic lipogenesis. Glimcher LH, et al. Ann N Y Acad Sci, 2009 Sep. PMID 19751410.

Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.33 KDa) .



XBP1 monoclonal antibody (M04), clone 4E4 Western Blot analysis of XBP1 expression in U-2 OS((Cat # AT4550a)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.