



XBP-1 Monoclonal Antibody

Catalog No	YP-Ab-01034
Isotype	IgG
Reactivity	Human
Applications	WB;ELISA
Gene Name	XBP1
Protein Name	X-box-binding protein 1
Immunogen	Purified recombinant fragment of human XBP-1 expressed in E. Coli.
Specificity	XBP-1 Monoclonal Antibody detects endogenous levels of XBP-1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide, 0.5% BSA, 50% glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	XBP1; TREB5; XBP2; X-box-binding protein 1; XBP-1; Tax-responsive element-binding protein 5
Observed Band	
Cell Pathway	Endoplasmic reticulum . Colocalizes with ERN1 and KDR in the endoplasmic reticulum in endothelial cells in a vascular endothelial growth factor (VEGF)-dependent manner (PubMed:23529610). .; [Isoform 1]: Nucleus . Cytoplasm . Endoplasmic reticulum membrane ; Single-pass type II membrane protein . Endoplasmic reticulum membrane ; Peripheral membrane protein . Membrane ; Peripheral membrane protein . Shows no preferential localization to either the nucleus or the cytoplasm (By similarity). Shuttles between the nucleus and the cytoplasm in a CRM1-dependent manner (PubMed:16461360). Localizes predominantly at the endoplasmic reticulum membrane as a membrane-spanning protein; whereas may be only marginally localized on the cytosolic side of the ER membrane as a peripheral membrane (PubMed:193942)
Tissue Specificity	Expressed in plasma cells in rheumatoid synovium (PubMed:11460154). Over-expressed in primary breast cancer and metastatic breast cancer cells (PubMed:25280941). Isoform 1 and isoform 2 are expressed at higher level in proliferating as compared to confluent quiescent endothelial cells (PubMed:19416856).
Function	disease: Genetic variations in XBP1 could be associated with susceptibility to major affective disorder type 7 (MAFD7) [MIM:612371]. Major affective disorders represent a class of mental disorders characterized by a disturbance in mood as



their predominant feature. function: Transcription factor essential for hepatocyte growth, the differentiation of plasma cells, the immunoglobulin secretion, and the unfolded protein response (UPR). Acts during endoplasmic reticulum stress (ER) by activating unfolded protein response (UPR) target genes via direct binding to the UPR element (UPRE). Binds DNA preferably to the CRE-like element 5'-GATGACGTG[TG]N(3)[AT]T-3', and also to some TPA response elements (TRE). Binds to the HLA DR-alpha promoter. Binds to the Tax-responsive element (TRE) of HTLV-I. induction: Up-regulated by ATF6 via direct binding to the ERSE in response to endoplasmic reticulum stress

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 e

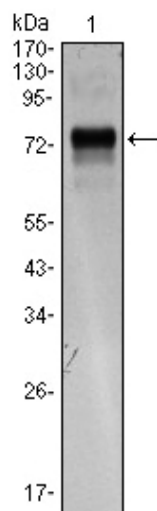
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis using XBP-1 Monoclonal Antibody against XBP1-hlgGfc transfected HEK293 cell lysate.