

XBP-1 Monoclonal Antibody

Catalog No :	YM0653
Reactivity :	Human
Applications :	WB;ELISA
Target :	XBP-1
Fields :	>>Protein processing in endoplasmic reticulum;>>Non-alcoholic fatty liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Spinocerebellar ataxia;>>Pathways of neurodegeneration - multiple diseases;>>Lipid and atherosclerosis
Gene Name :	XBP1
Protein Name :	X-box-binding protein 1
Human Gene Id :	7494
Human Swiss Prot No :	P17861
Mouse Swiss Prot No :	O35426
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 :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	29kD

P References :

1. J Biol Chem. 2009 May 29;284(22):14904-13.
2. Neoplasia. 2009 May;11(5):436-47.
3. Clin Cancer Res. 2009 Jun 1;15(11):3834-41.

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

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 stre

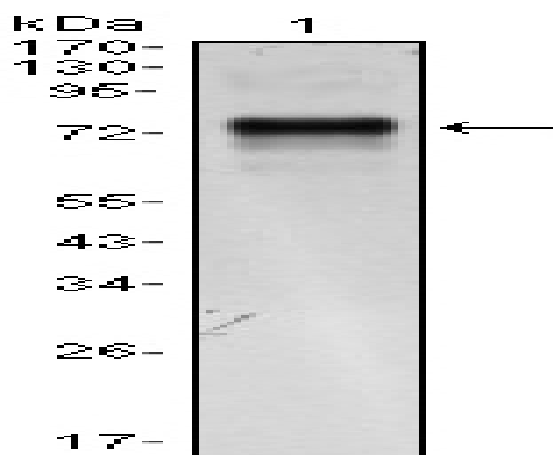
Subcellular Location :

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

Expression :

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).

Products Images



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