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XBP1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12798b

Specification

XBP1 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	P17861
Other Accession	NP_001073007.1, NP_005071.2
Reactivity	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**28695**
Antigen Region	**217-244**

XBP1 Antibody (C-term) - 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
This XBP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 217-244 amino acids from the C-terminal region of human XBP1.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
XBP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

XBP1 Antibody (C-term) - Protein Information

Name XBP1 (HGNC:12801)

Function Functions as a transcription factor during endoplasmic reticulum (ER) stress by regulating the unfolded protein response (UPR). Required for cardiac myogenesis and

hepatogenesis during embryonic development, and the development of secretory tissues such as exocrine pancreas and salivary gland (By similarity). Involved in terminal differentiation of B lymphocytes to plasma cells and production of immunoglobulins (PubMed:11460154). Modulates the cellular response to ER stress in a PIK3R-dependent manner (PubMed:20348923). Binds to the cis-acting X box present in the promoter regions of major histocompatibility complex class II genes (PubMed:8349596). Involved in VEGF-induced endothelial cell (EC) proliferation and retinal blood vessel formation during embryonic development but also for angiogenesis in adult tissues under ischemic conditions. Functions also as a major regulator of the UPR in obesity-induced insulin resistance and type 2 diabetes for the management of obesity and diabetes prevention (By similarity).

Cellular Location
Endoplasmic reticulum. Note=Colocalizes with ERN1 and KDR in the endoplasmic reticulum in endothelial cells in a vascular endothelial growth factor (VEGF)-dependent manner (PubMed:23529610) [Isoform 2]: Nucleus. Cytoplasm {ECO:0000250|UniProtKB:O35426}. Note=Localizes predominantly in the nucleus. Colocalizes in the nucleus with SIRT1. Translocates into the nucleus in a PIK3R-, ER stress-induced- and/or insulin-dependent manner (By similarity). {ECO:0000250|UniProtKB:O35426}

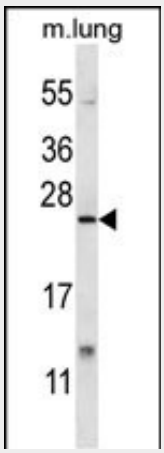
Tissue Location
Expressed in plasma cells in rheumatoid synovium (PubMed:11460154). Over-expressed in primary breast cancer and metastatic breast cancer cells (PubMed:25280941). Isoform 1 and isoform 2 are expressed at higher level in proliferating as compared to confluent quiescent endothelial cells (PubMed:19416856)

XBP1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

XBP1 Antibody (C-term) - Images



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XBP1 Antibody (C-term) (Cat. #AP12798b) western blot analysis in mouse lung tissue lysates (35ug/lane).This demonstrates the XBP1 antibody detected the XBP1 protein (arrow).

XBP1 Antibody (C-term) - 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.

XBP1 Antibody (C-term) - References

Sudarshan, S.R., et al. Biochem. Biophys. Res. Commun. 399(4):617-622(2010)
Thorpe, J.A., et al. Cell Stress Chaperones 15(5):497-508(2010)
Bagratuni, T., et al. Blood 116(2):250-253(2010)
Sawada, T., et al. J. Mol. Cell. Cardiol. 48(6):1280-1289(2010)
Lee, J.H., et al. Exp. Mol. Med. 42(5):386-394(2010)

XBP1 Antibody (C-term) - Citations

- Midazolam regulated caspase pathway, endoplasmic reticulum stress, autophagy, and cell cycle to induce apoptosis in MA-10 mouse Leydig tumor cells.