

# Anti-XBP1 Rabbit Monoclonal Antibody

Catalog # ABO13524

### Specification

# Anti-XBP1 Rabbit Monoclonal Antibody - Product Information

Application Primary Accession Host Isotype Reactivity Clonality Format **Description**  WB, IHC, IF, ICC, FC <u>P17861</u> Rabbit Rabbit IgG Human Monoclonal Liquid

Anti-XBP1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human.

## Anti-XBP1 Rabbit Monoclonal Antibody - Additional Information

Gene ID 7494

Other Names X-box-binding protein 1 {ECO:0000303|PubMed:2321018, ECO:0000312|HGNC:HGNC:12801}, XBP-1, Tax-responsive element-binding protein 5, TREB-5, X-box-binding protein 1, cytoplasmic form, X-box-binding protein 1, luminal form, XBP1 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=12801" target="\_blank">HGNC:12801</a>)

Calculated MW 28695 MW KDa

Application Details WB 1:500-1:2000<br>IHC 1:100-1:500<br>ICC/IF 1:50-1:200<br>FC 1:50

Subcellular Localization

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).

#### **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)..

#### Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human XBP1



Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

## Anti-XBP1 Rabbit Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/11460154" target="\_blank">11460154</a>). Modulates the cellular response to ER stress in a PIK3R-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/20348923" target="\_blank">20348923</a>). Binds to the cis-acting X box present in the promoter regions of major histocompatibility complex class II genes (PubMed:<a

href="http://www.uniprot.org/citations/8349596" target="\_blank">8349596</a>). 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)

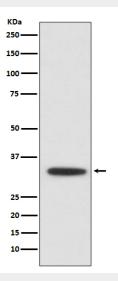
# Anti-XBP1 Rabbit Monoclonal Antibody - Protocols

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

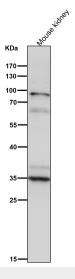
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>



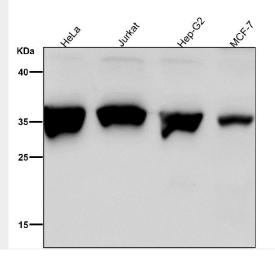
# Anti-XBP1 Rabbit Monoclonal Antibody - Images



Western blot analysis of XBP1 expression in Jurkat cell lysate.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.





All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.