

**XBP1 Rabbit mAb [Q40Z]**

**Cat NO. :A16361**

**Information:**

| Applications | Reactivity: | UniProt ID: | MW(kDa) | Host   | Isotype | Size        |
|--------------|-------------|-------------|---------|--------|---------|-------------|
| WB,IHC       | H           | P17861      | 29 kDa  | Rabbit | IgG     | 100ul,200ul |

**Applications detail:**

| Application  | Dilution    |
|--|-------------|
| WB   | 1:1000-2000 |
| IHC  | 1:100       |
| The optimal dilutions should be determined by the end user |             |

**Conjugate:**

UnConjugate

**Form:**

Liquid

**sensitivity:**

Endogenous

**Purification:**

Protein A purification

**Specificity:**

Antibody is produced by immunizing animals with a synthetic peptide at the sequence of human XBP1

**Storage buffer and conditions:**

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol (buffer) .

Shipped at 4°C. Store at -20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

**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

**Subcellular location:**

Endoplasmic reticulum.

**Function:**

**Introduction:** **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/Immunofluorescence **F:** Flow Cytometry

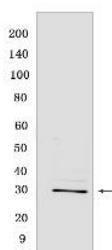
**Cross Reactivity:** **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Ml:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Hr:** horse

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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)... [Isoform 1]: Plays a role in the unconventional cytoplasmic splicing processing of its own mRNA triggered by the endoplasmic reticulum (ER) transmembrane endoribonuclease ERN1: upon ER stress, the emerging XBP1 polypeptide chain, as part of a mRNA-ribosome-nascent chain (R-RNC) complex, cotranslationally recruits its own unprocessed mRNA through transient docking to the ER membrane and translational pausing, therefore facilitating efficient IRE1-mediated XBP1 mRNA isoform 2 production (PubMed:19394296, PubMed:21233347). In endothelial cells (EC), associated with KDR, promotes IRE1-mediated XBP1 mRNA isoform 2 productions in a vascular endothelial growth factor (VEGF)-dependent manner, leading to EC proliferation and angiogenesis (PubMed:23529610). Functions as a negative feed-back regulator of the potent transcription factor XBP1 isoform 2 protein levels through proteasome-mediated degradation, thus preventing the constitutive activation of the ER stress response signaling pathway (PubMed:16461360, PubMed:25239945). Inhibits the transactivation activity of XBP1 isoform 2 in myeloma cells (By similarity). Acts as a weak transcriptional factor (PubMed:8657566). Together with HDAC3, contributes to the activation of NFE2L2-mediated HMOX1 transcription factor gene expression in a PI(3)K/mTORC2/Akt-dependent signaling pathway leading to EC survival under disturbed flow/oxidative stress (PubMed:25190803). Binds to the ER stress response element (ERSE) upon ER stress (PubMed:11779464). Binds to the consensus 5'-GATGACGTG[TG]N(3)[AT]T-3' sequence related to cAMP responsive element (CRE)-like sequences (PubMed:8657566). Binds the Tax-responsive element (TRE) present in the long terminal repeat (LTR) of T-cell leukemia virus type 1 (HTLV-I) and to the TPA response elements (TRE) (PubMed:2321018, PubMed:2196176, PubMed:1903538, PubMed:8657566). Associates preferentially to the HDAC3 gene promoter region in a static flow-dependent manner

## Validation Data:

### XBP1 Rabbit mAb [Q40Z] Images



Western blot (SDS PAGE) analysis of extracts from 293T cells. Using XBP1 Rabbit mAb [Q40Z] at dilution of 1:1000 incubated at 4°C over night.

View more information on <http://naturebios.com>

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.