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XBP-1 antibody

**Catalog Number:** PR-1680

**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.

**Description:** Rabbit polyclonal to XBP-1.

**Immunogen:** KLH conjugated synthetic peptide derived from XBP-1.

**Specificity:** This antibody has been selected for its ability to recognize XBP-1 of **Human, Mouse, Pig and Rat** in immunohistochemical staining.

**Isotype:** Rabbit IgG.

**Size:** 0.2mL (1mg/mL).

**Formulation:** 1% BSA, 0.01M phosphate-buffered saline, pH 7.4, 0.05% NaN<sub>3</sub>.

**Purity:** Affinity chromatography purification by Protein A/G Column.

**Application:**

- Western blotting: 1/100-500. Predicted Mol wt: 29 kDa;
- Immunohistochemistry in formalin fixed frozen section: 1:100-500;
- Immunohistochemistry in paraffin section: 1:100-500;
- Immunocytochemistry: 1/200-500;
- ELISA: 1/1000;
- Optimal working dilutions must be determined by the end user.

**Antigen Retrieval of Tissue:** The paraffin section in 10mM citrate buffer, pH 6.0 or EDTA, pH 8.0 for 10~15mins is required the staining of paraffin sections.

**Positive control:** Brain.

**Cellular localization:** Nucleus.

**Storage:** Store at -20 °C for one year from date of receipt. Lyophilized antibody is stable at room temperature for at least two month and for greater than a year when kept at -20°C to -70°C. When reconstituted, lyophilized antibody is stable for at least two months at 2-8 °C. Avoid repeated freeze/thaw cycles.

**Important Note:** Gently centrifuge microtube to remove product from lid. This product as supplied is intended for in vitro laboratory use only, not for use in human, therapeutic or diagnostic applications.