

**XPB1 Antibody (aa2-160, clone 9B7E5)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12665****Specification****XPB1 Antibody (aa2-160, clone 9B7E5) - Product Information**

Application	ICC, IF
Primary Accession	<a href="#">P17861</a>
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	29kDa KDa

**XPB1 Antibody (aa2-160, clone 9B7E5) - 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>)

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

XPB1 Antibody (aa2-160, clone 9B7E5) is for research use only and not for use in diagnostic or therapeutic procedures.

**XPB1 Antibody (aa2-160, clone 9B7E5) - 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

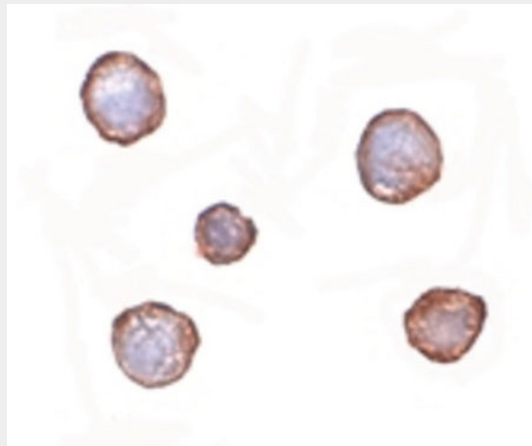
Expressed in plasma cells in rheumatoid synovium (PubMed:11460154). Over-expressed in primary breast cancer and metastatic breast cancer cells (PubMed:25280941). Isoform 1 and isoform 2 are expressed at higher level in proliferating as compared to confluent quiescent endothelial cells (PubMed:19416856)

### XBP1 Antibody (aa2-160, clone 9B7E5) - Protocols

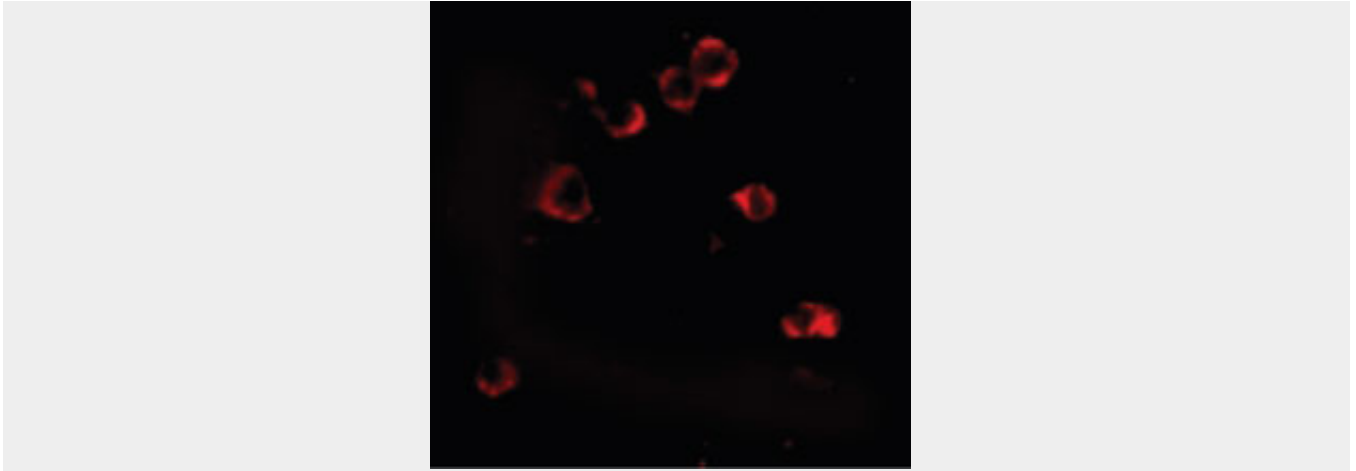
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### XBP1 Antibody (aa2-160, clone 9B7E5) - Images



Immunocytochemistry of XBP-1 in HepG2 cells with XBP-1 antibody at 2 ug/ml.



Immunofluorescence of XBP1 in HepG2 cells with XBP1 antibody at 2 ug/ml.

### **XBP1 Antibody (aa2-160, clone 9B7E5) - Background**

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).

### **XBP1 Antibody (aa2-160, clone 9B7E5) - References**

- Liou H.-C., et al. *Science* 247:1581-1584(1990).
- Yoshimura T., et al. *EMBO J.* 9:2537-2542(1990).
- Ponath P.D., et al. *J. Biol. Chem.* 268:17074-17082(1993).
- Yoshida H., et al. *Cell* 107:881-891(2001).
- Collins J.E., et al. *Genome Biol.* 5:R84.1-R84.11(2004).