

**ATF6 Antibody**  
Catalog # ASC10389**Specification**

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**ATF6 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P18850</a>
Other Accession	<a href="#">NP_031374</a> , <a href="#">22926</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	ATF6 antibody can be used for the detection of ATF6 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL and immunocytochemistry starting at 10 µg/mL. For immunofluorescence start at 10 µg/mL.

**ATF6 Antibody - Additional Information**

Gene ID 22926

**Other Names**

ATF6 Antibody: ATF6A, Cyclic AMP-dependent transcription factor ATF-6 alpha, Activating transcription factor 6 alpha, cAMP-dependent transcription factor ATF-6 alpha, activating transcription factor 6

**Target/Specificity**

ATF6 antibody was raised against a 16 amino acid synthetic peptide from near the carboxy terminus of human ATF6. The immunogen is located within amino acids 470 - 520 of ATF6.

**Reconstitution & Storage**

ATF6 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

ATF6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ATF6 Antibody - Protein Information**

Name ATF6

**Function**

[Cyclic AMP-dependent transcription factor ATF-6 alpha]: Precursor of the transcription factor form (Processed cyclic AMP- dependent transcription factor ATF-6 alpha), which is embedded in the

endoplasmic reticulum membrane (PubMed:<a href="http://www.uniprot.org/citations/10564271" target="\_blank">10564271</a>, PubMed:<a href="http://www.uniprot.org/citations/11158310" target="\_blank">11158310</a>, PubMed:<a href="http://www.uniprot.org/citations/11779464" target="\_blank">11779464</a>). Endoplasmic reticulum stress promotes processing of this form, releasing the transcription factor form that translocates into the nucleus, where it activates transcription of genes involved in the unfolded protein response (UPR) (PubMed:<a href="http://www.uniprot.org/citations/10564271" target="\_blank">10564271</a>, PubMed:<a href="http://www.uniprot.org/citations/11158310" target="\_blank">11158310</a>, PubMed:<a href="http://www.uniprot.org/citations/11779464" target="\_blank">11779464</a>).

### Cellular Location

Endoplasmic reticulum membrane; Single-pass type II membrane protein. Golgi apparatus membrane; Single-pass type II membrane protein. Note=Translocates from the endoplasmic reticulum to the Golgi, where it is processed.

### Tissue Location

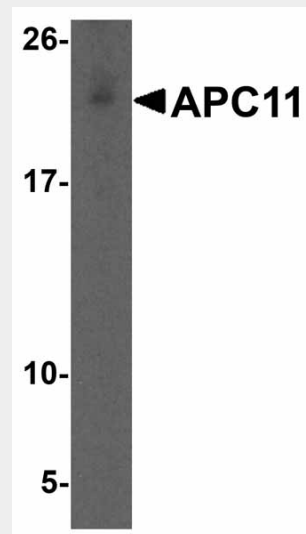
Ubiquitous..

### ATF6 Antibody - Protocols

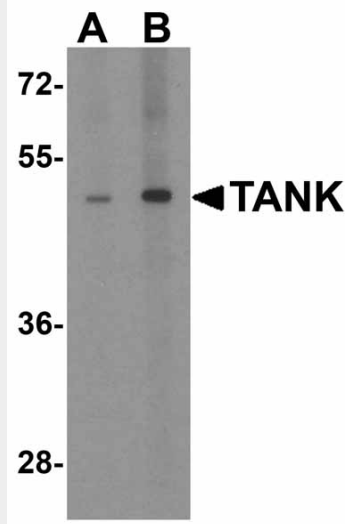
Provided below are standard protocols that you may find useful for product applications.

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

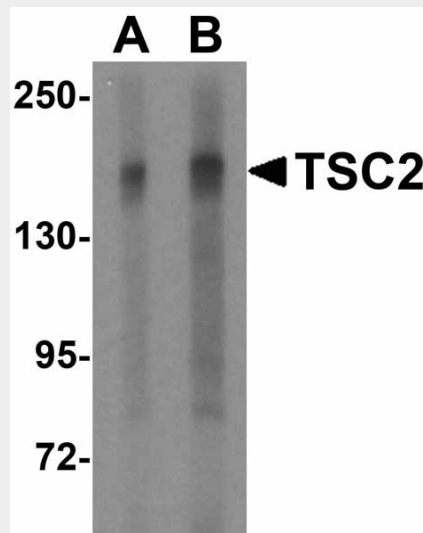
### ATF6 Antibody - Images



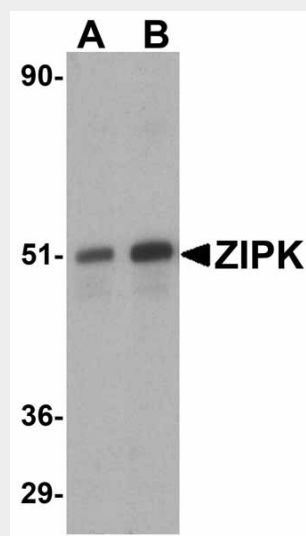
Western blot analysis of APC11 in HeLa cell lysate with APC11 antibody at 1 µg/mL.



Western blot analysis of TANK in human kidney tissue lysate with TANK antibody at (A) 1 and (B) 2 µg/mL.



Western blot analysis of TSC2 in L1210 cell lysate with TSC2 antibody at (A) 2 and (B) 4 µg/mL.



Western blot analysis of ZIP kinase in (A) HeLa and (B) Jurkat lysates with ZIP kinase antibody at 1 µg/mL.

### **ATF6 Antibody - Background**

**ATF6 Antibody:** Disruptions of protein folding and maturation in the endoplasmic reticulum (ER) result in the activation of the unfolded protein response (UPR), an integrated cellular signaling pathway that transmits information from the ER lumen to the cytoplasm and nucleus. Activating transcription factor 6 (ATF6) as well as the ER-transmembrane protein kinases IRE1p and PERK are the major transducers of the UPR. ATF6 is an ER transmembrane protein that is normally bound to the ER chaperone GRP78, but upon ER stress is released from GRP78 and proteolytically cleaved to yield a cytosolic fragment which then migrates to the nucleus, and together with the transcription factor XBP-1, activates transcription of UPR-responsive genes. ATF6 has two isoforms (ATF6 $\alpha$  and ATF6 $\beta$ ); only ATF6 $\alpha$  is recognized by this antibody.

### **ATF6 Antibody - References**

- Liu CY and Kaufman RJ. The unfolded protein response. *J. Cell Sci.* 2003; 1861-2.
- Haze K, Yoshida H, Yanagi H, et al. Mammalian transcription factor ATF6 is synthesized as a transmembrane protein and activated by proteolysis in response to endoplasmic stress. *Mol. Cell. Biol.* 1999; 10:3787-99.
- Little E, Ramakrishnan M, Roy B, et al. The glucose-regulated proteins (GRP78 and GRP94): functions, gene regulation, and applications. *Crit. Rev. Eukaryot. Gene Expr.* 1994; 4:1-18.
- Yoshida H, Matsui T, Yamamoto T, et al. XBP1 mRNA is induced by ATF6 and spliced by IRE1p in response to ER stress to produce a highly active transcription factor. *Cell* 2001; 107:881-91.