

## **Product datasheet for TA336753**

## OriGene Technologies, Inc.

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## ATF6 Mouse Monoclonal Antibody [Clone ID: 70B1413.1]

**Product data:** 

**Product Type:** Primary Antibodies

Clone Name: 70B1413.1

Applications: FC, IHC, WB

Recommended Dilution: WB: 1-5 ug/ml, ChIP: 1:10-1:500, FC: 1 ug per million cells, IF: 1:10-1:500, IHC: 1:10-1:500, IHC-F:

1:10-1:500, IHC-P: 1:50, IP: 1:10-1:500

**Reactivity:** Human, Mouse, Rat, Fish, Hamster, Rabbit

**Host:** Mouse

Isotype: IgG1, kappa
Clonality: Monoclonal

**Immunogen:** This monoclonal antibody was made against a partial protein containing amino acids 1-273 of

human ATF6.

Formulation: PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -

20C long term. Avoid freeze-thaw cycles.

**Concentration:** lot specific

Purification: Protein G purified

Conjugation: Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

**Gene Name:** activating transcription factor 6

Database Link: NP 031374

Entrez Gene 226641 MouseEntrez Gene 304962 RatEntrez Gene 22926 Human

P18850





Background:

ATF6 is a constitutively expressed, endoplasmic reticulum (ER) membrane-anchored transcription factor. ATF6 is a key transcriptional activator of the unfolded protein response (UPR), which allows mammalian cells to maintain cellular homeostasis when they are subjected to environmental and physiological stresses that target the ER (reviewed in Shen, 2005 & Prywes, 2005). The C-terminus of ATF6 is located in the ER lumen and its N-terminal DNA binding domain faces the cytosol. AFT6 plays a key role in the ER stress response by transmitting the ER stress signal across the ER membrane into the nucleus. The induction of new gene expression by ATF6 is an important aspect of the ER stress response. In response to certain stress conditions, ATF6 translocates from the ER to the Golgi. The 90 kDa full-length ATF6 is processed within the Golgi to its active 50 kDa form through sequential cleavage by site-1 and site-2 proteases (S1P and S2P). Proteolytic activation of ATF6 in the ER stress response is a mechanism to regulate membrane-bound factors, and is referred to as regulated intramembrane proteolysis. The N-terminal active ATF6 translocates to the nucleus where it binds to ER stress-response elements in ER stress-response genes (ERSRGs). ATF6 is a potent transcriptional activator of ERSRGs. The fully glycosylated form of ATF6, a 670 amino acid protein, exhibits an electrophoretic mobility of ~90 kDa in denaturing SDS-gels, in part because of the glycosylated modifications. ATF6 has 3 consensus sites for N-linked glycosylation and exists constitutively as a glycosylated protein. Differentially glycosylated ATF6 forms may result from mutations or experimental treatment.

Synonyms: ACHM7; ATF6A

**Note:** Chromatin Immunoprecipitation: See Donati et al, 2006 and Renna et al, 2007 for details.

Immunocytochemistry/Immunofluorescence: See Thomas et al (2005) and Kikuchi et al (2006)

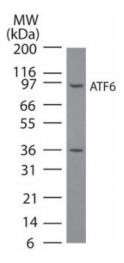
for details. Immunohistochemistry (frozen): See Zhu et al, 2008 for details. Immunohistochemistry (paraffin): See van Kollenburg et al (2006) for details.

Immunoprecipitation: See Hong et al, 2004 for details.

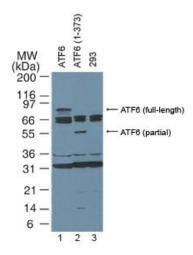
Protein Families: Transcription Factors
Protein Pathways: Alzheimer's disease



## **Product images:**

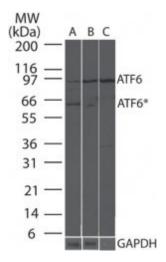


Western Blot: ATF6 Antibody (70B1413.1) TA336753 - Analysis of ATF6 in NIH3T3 cell lysate using TA336753 at 3 ug/ml. A band corresponding to full-length ATF6 was detected. We have not characterized the ~36 kDa observed band; it may be an ATF6 breakdown/

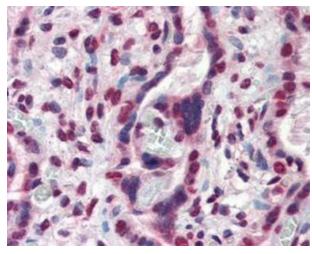


Western Blot: ATF6 Antibody (70B1413.1) TA336753 - Analysis of ATF6. Lane 1, 293 cells transfected with full-length ATF6.\* Lane 2, 293 cells transfected with partial length ATF6 (amino acids 1-373).\* Lane 3, Untransfected 293 cells. Western blots were p

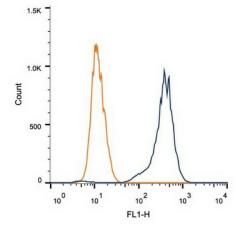




Western Blot: ATF6 Antibody (70B1413.1) TA336753 - Western blot analysis of ATF6 in mouse liver tissue using 3 ug/ml of A TF6 antibody and 0.25 ug/ml of GAPDH antibody. Lane A contains 20 ugs of whole mouse liver lysate, lane B contains 20 ugs of tota



Immunohistochemistry-Paraffin: ATF6 Antibody (70B1413.1) TA336753 - ATF6 antibody (10 ug/ml) was used in IHC to stain formalin-fixed, paraffinembedded human placenta, followed by biotinylated horse anti-mouse IgG secondary antibody, alkaline phosphatas



Flow Cytometry: ATF6 Antibody (70B1413.1) TA336753 - Intracellular flow cytometric staining of 1 x 10^6 MCF-7 cells using ATF6 antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 ug/1x10^6 cells was used.