

# ATF-6 $\beta$ (4D10): sc-293306

## BACKGROUND

ATF-6 is a member of the basic-leucine zipper family of transcription factors. Endoplasmic reticulum stress causes cleavage of transmembrane ATF-6 and translocation of active ATF-6 to the nucleus. Soluble ATF-6 can exist as either an ATF-6 $\beta$  homodimer or an ATF-6 $\alpha$ / $\beta$  heterodimer. Binding of the ATF-6 $\beta$  homodimer or ATF-6 $\alpha$ / $\beta$  heterodimer to the nuclear transcription factor Y C (NF-YC) induces ER chaperone transcription.

## REFERENCES

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- Yoshida, H., Okada, T., Haze, K., Yanagi, H., Yura, T., Negishi, M. and Mori, K. 2000. ATF6 activated by proteolysis binds in the presence of NF-Y (CBF) directly to the *cis*-acting element responsible for the mammalian unfolded protein response. *Mol. Cell. Biol.* 20: 6755-6767.

## CHROMOSOMAL LOCATION

Genetic locus: ATF6B (human) mapping to 6p21.33; Atf6b (mouse) mapping to 17 B1.

## SOURCE

ATF-6 $\beta$  (4D10) is a mouse monoclonal antibody raised against amino acids 2-88 of ATF-6 $\beta$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

ATF-6 $\beta$  (4D10) is recommended for detection of ATF-6 $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ATF-6 $\beta$  siRNA (h): sc-105103, ATF-6 $\beta$  siRNA (m): sc-141318, ATF-6 $\beta$  shRNA Plasmid (h): sc-105103-SH, ATF-6 $\beta$  shRNA Plasmid (m): sc-141318-SH, ATF-6 $\beta$  shRNA (h) Lentiviral Particles: sc-105103-V and ATF-6 $\beta$  shRNA (m) Lentiviral Particles: sc-141318-V.

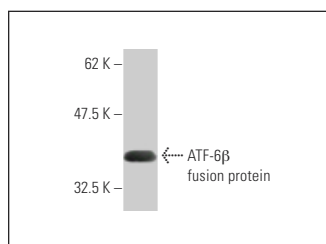
Molecular Weight of full length ATF-6 $\beta$ : 90 kDa.

Molecular Weight of cleaved ATF-6 $\beta$ : 60 kDa.

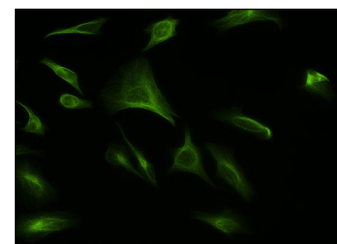
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ATF-6 $\beta$  (4D10): sc-293306. Western blot analysis of human recombinant ATF-6 $\beta$  fusion protein.



ATF-6 $\beta$  (4D10): sc-293306. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear envelope localization.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.