

Anti-ATF6 Antibody [8D3-R]

HA601321



Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 75 kDa
Clone number:	8D3-R

Description: Transmembrane glycoprotein of the endoplasmic reticulum that functions as a transcription activator and initiates the unfolded protein response (UPR) during endoplasmic reticulum stress. Cleaved upon ER stress, the N-terminal processed cyclic AMP-dependent transcription factor ATF-6 alpha translocates to the nucleus where it activates transcription of genes involved in the UPR. Binds DNA on the 5'-CCAC[GA]-3' half of the ER stress response element (ERSE) (5'-CCAAT-N9-CCAC[GA]-3') and of ERSE II (5'-ATTGG-N-CCACG-3'). Binding to ERSE requires binding of NF-Y to ERSE. Could also be involved in activation of transcription by the serum response factor. May play a role in foveal development and cone function in the retina.

Immunogen: Recombinant protein within Human ATF6 aa 1-670 / 670.

Positive control: HeLa cell lysate, Jurkat cell lysate, RAW264.7 cell lysate, PC-12 cell lysate, mouse brain tissue lysate, mouse kidney tissue lysate, HeLa.

Subcellular location: Endoplasmic reticulum. Nucleus.

Database links: SwissProt: P18850 Human | F6VAN0 Mouse | G3V909 Rat

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

Service mail: support@huabio.cn

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

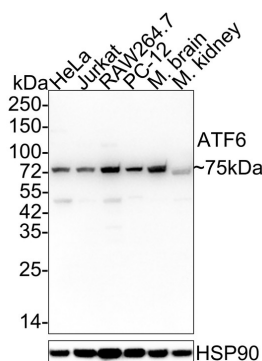


Fig1: Western blot analysis of ATF6 on different lysates with Mouse anti-ATF6 antibody (HA601321) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
 Lane 2: Jurkat cell lysate (20 µg/Lane)
 Lane 3: RAW264.7 cell lysate (20 µg/Lane)
 Lane 4: PC-12 cell lysate (20 µg/Lane)
 Lane 5: Mouse brain tissue lysate (40 µg/Lane)
 Lane 6: Mouse kidney tissue lysate (40 µg/Lane)

Predicted band size: 75 kDa

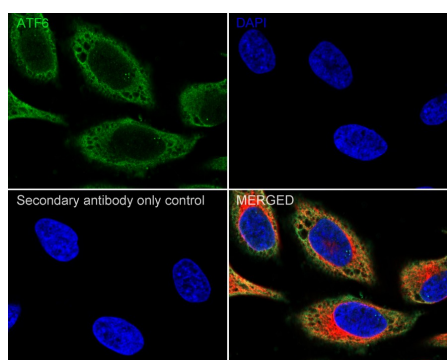
Observed band size: 75 kDa

Exposure time: 1 minute 21 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601321) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Immunocytochemistry analysis of HeLa cells labeling ATF6 with Mouse anti-ATF6 antibody (HA601321) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-ATF6 antibody (HA601321) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

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Fig3: Western blot analysis of ATF6 on different lysates with Mouse anti-ATF6 antibody (HA601321) at 1/2,000 dilution.

Lane 1: A549-WT cell lysate

Lane 2: A549-KD ATF6 cell lysate

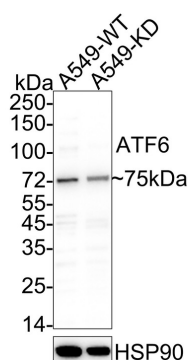
Lysates/proteins at 10 µg/Lane.

Predicted band size: 75 kDa

Observed band size: 75 kDa

Exposure time: 11 seconds; ECL: K1801;

4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601321) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

Background References

1. Kohl S et al. Mutations in the unfolded protein response regulator ATF6 cause the cone dysfunction disorder achromatopsia. Nat Genet 47:757-765 (2015).
2. Lynch J M et al. A thrombospondin-dependent pathway for a protective ER stress response. Cell 149:1257-1268 (2012).

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