

Product Datasheet

ATF6 Antibody (70B1413.1) - Azide and BSA Free NBP2-80583

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NBP2-80583

ATF6 Antibody (70B1413.1) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	70B1413.1
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	TBS

Product Description

Description	<p>(1) The ATF6 (IMG-273) has been cited to recognize both full-length and cleaved forms of ATF6. Please refer to the references in the Product Citation list for more comprehensive information.</p> <p>(2) The ATF6 transfected cell lysate (40210) is recommended as a useful western blot positive control to run in parallel with your experimental samples.</p> <p>(3) Active/cleaved forms of ATF6 are generated through proteolytic cleavage during ER stress. Different molecular weights have been described for cleaved forms. A sample protocol was first described in Luo and Lee (2002) wherein NIH3T3 cells were treated with the amino acid analogue azetidine (AzC), and full-length and cleaved forms ATF6 were detected with IMG-273. The results show that in addition to the major 90 kDa full length ATF6, protein bands over the range of 50-70 kDa were detectable following AzC treatment (Luo and Lee, 2002: Figure 4A, page 791). Many protocols and other cleaved forms have been described since, please consult the literature for additional information.</p> <p>(4) For immunofluorescence microscopy, cells were fixed in methanol at -20 degrees C (Thomas et al, 2005). Thomas et al used immunofluorescence to identify ATF6 with IMG-273 in the nucleus.</p> <p>(5) The active/cleaved 50 kDa nuclear form of ATF6 using IMG-273 has been found to be strongly expressed in certain tumor cell lines derived from B cell lymphoma (DEL), primary effusion lymphoma [BC-3 (ATCC CRL-2277), PEL-SY, HBL-6], lymphoblastic leukemia (DS-1) and multiple myeloma (RPMI-8226, NCI-H929), (Jenner et al. 2003).</p> <p>(6) Cleaved 60 and 36 kDa ATF6 forms have also been described in the nucleus (Mao et al, 2007).</p> <p>(7) The ATF6 antibody is reported to be specific for ATF6a, recognizing ATF6a but not ATF6b (Bommiasamy et al, 2009).</p> <p>(8) In western blots, the binding pattern of ATF6 may vary. Researchers are encouraged to consult the body of literature citing the ATF6 IMG-273 antibody (see Product citation list) for additional information. General ATF6 literature is also helpful. For example, Yoshida (1998) show a multiple band pattern in HeLa in both untreated and stressed cells (Fig 11B). In this early landmark ATF6 publication, multiple bands were seen between the 66 and 116 kDa markers as well as one or more bands between the 45 and 66 kDa markers.</p> <p>(9) We highly recommend the use of a maximum sensitivity ECL substrate (Femto sensitive) for efficient detection of this antibody in Western blot applications.</p>
Host	Mouse
Gene Symbol	ATF6
Species	Human, Mouse, Rat, Porcine, Plant, Rabbit
Immunogen	This monoclonal antibody was made against a partial protein containing amino acids 1-273 of human ATF6.
Product Application Details	
Applications	Western Blot, Flow Cytometry, Flow (Intracellular), Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), CyTOF-ready, Knockout Validated

Recommended Dilutions	Western Blot : 1-5 ug/ml, Flow Cytometry : 1 ug per million cells, Immunohistochemistry : 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (Thomas et al (2005); Kikuchi et al (2006)), Immunoprecipitation 1:10 - 1:500. Use reported in scientific literature (Hong et al (2004)), Immunohistochemistry-Paraffin 1:50. Use reported in scientific literature (van Kollenburg et al (2006)), Immunohistochemistry-Frozen 1:10-1:500. Use reported in scientific literature (Zhu et al (2008)), Immunoblotting reported in scientific literature (PMID 28550308), Flow (Intracellular), Chromatin Immunoprecipitation (ChIP) 1:10-1:500, CyTOF-ready, Knockout Validated
Application Notes	In Western blot do not use milk in the diluent as it can inhibit the observed signal. This antibody is CyTOF ready.

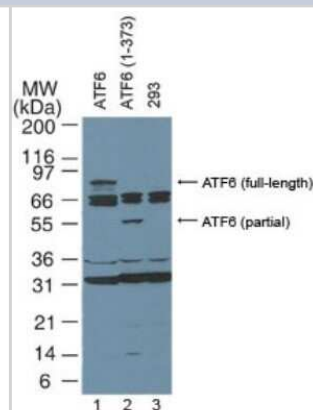
Images

Western Blot: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Lane 1: 293 cells transfected with full-length ATF6.

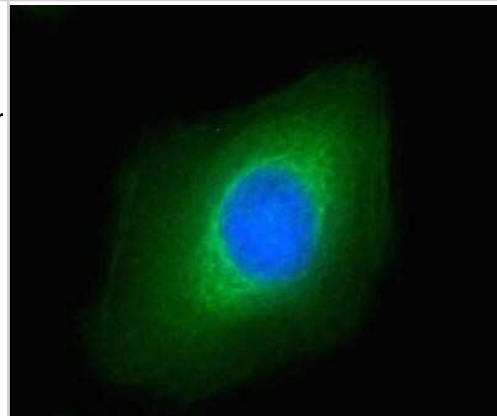
Lane 2: 293 cells transfected with partial length ATF6 (amino acids 1-373).

Lane 3: Untransfected 293 cells.

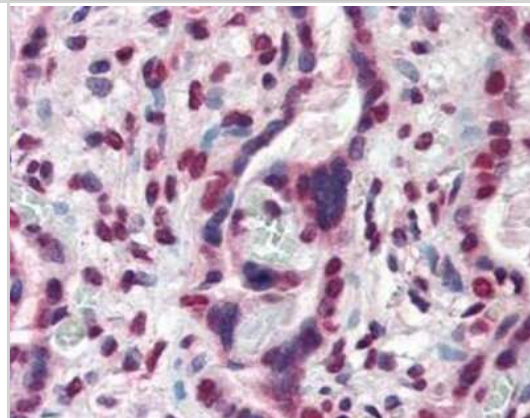
Western blots were probed with 4 ug/ml of the ATF6 monoclonal antibody and visualized with PicoTect Western Blot Chemiluminescence Substrate (10087K). Film was exposed for 1 min. The top arrow corresponds to the 90 kDa form of ATF6 described as full-length in the literature. The human full-length and partial length ATF6 plasmids are described in Luo and Lee (2002). Image from the standard format of this antibody.



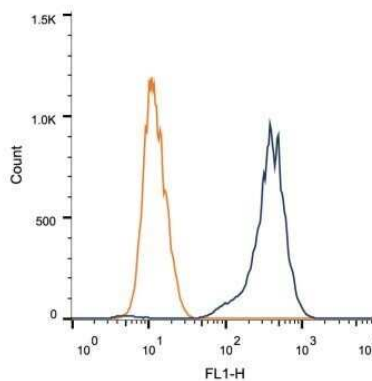
Immunocytochemistry/Immunofluorescence: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Untreated HeLa cells were fixed in -20C methanol for 10 min, air dried and rehydrated in PBS at room temperature for 5 minutes. Cells were incubated with anti-ATF6 (1:20) for one hour at room temperature. ATF6 reactivity (green) was detected with anti-mouse Dylight-488 secondary antibody. Nuclei were counterstained with DAPI (blue). Note the ER localization of ATF6. Image from the standard format of this antibody.



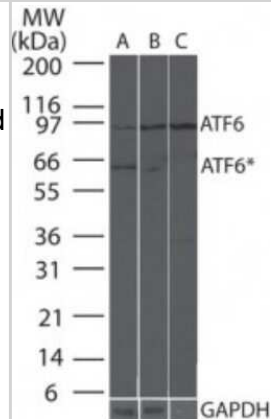
Immunohistochemistry: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Human placenta, followed by biotinylated horse anti-mouse IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen. Dilution 10ug/ml Image from the standard format of this antibody.



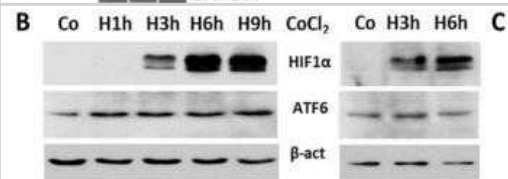
Flow Cytometry: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Intracellular flow cytometric staining of 1×10^6 MCF-7 cells using ATF6 antibody (dark blue). Isotype control shown in orange. An antibody concentration of $1 \mu\text{g}/1 \times 10^6$ cells was used. Image from the standard format of this antibody.



Western Blot: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Analysis of ATF6 in mouse liver tissue using $3 \mu\text{g}/\text{ml}$ of ATF6 antibody and $0.25 \mu\text{g}/\text{ml}$ of GAPDH antibody. Lane A contains $20 \mu\text{g}$ of whole mouse liver lysate, lane B contains $20 \mu\text{g}$ of total ER fraction, and lane C contains $20 \mu\text{g}$ of rough ER fraction. The ATF6 band may represent under glycosylated or cleaved/active ATF6. Image from the standard format of this antibody.



Western Blot: ATF6 Antibody (70B1413.1) - Azide and BSA Free [NBP2-80583] - Hypoxia leads to EMT and ER-stress in CRC cells. B. C. Confluent growing SW480 (B) and HCT116 (C) cells were cultured under conditions of normoxia or hypoxia-like conditions (serum free; $100 \mu\text{M}$ CoCl_2 , 1-9 h. B-actin (B-act) as loading control. HIF1a was detectable after 3 h of CoCl_2 incubation, the amount of the 50 kD -ATF6 fragment, was already enhanced after 1 h of addition of CoCl_2 . Image collected and cropped by CiteAb from the following publication ([//doi.org/10.1371/journal.pone.0087386](https://doi.org/10.1371/journal.pone.0087386)) licensed under a CC-BY license. Image from the standard format of this antibody.





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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

Limitations

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