

## Product datasheet

# Anti-ATF6 antibody [70B1413] - ChIP Grade ab11909

★★★★☆ 5 Abreviews 35 References 画像数 4

### 製品の概要

<b>製品名</b>	Anti-ATF6 antibody [70B1413] - ChIP Grade
<b>製品の詳細</b>	Mouse monoclonal [70B1413] to ATF6 - ChIP Grade
<b>由来種</b>	Mouse
<b>特異性</b>	This antibody recognizes both full length and active/Cleaved ATF6.
<b>アプリケーション</b>	<b>適用あり:</b> ICC/IF, IHC-P, IHC-Fr, IP, ChIP, Flow Cyt, WB
<b>種交差性</b>	<b>交差種:</b> Mouse, Rat, Rabbit, Hamster, Human
<b>免疫原</b>	Recombinant fragment corresponding to Human ATF6 aa 1-273. This monoclonal antibody was made against a partial protein containing amino acids 1-273 of human ATF6. Sequence:  MGEPAGVAGTMESPFPGLFHRLDEDWDSALFAELGYFTDDELQLEAAN ETYENNFNLDLDFDLMPWESDIWDINNQICTVKDIKAEPQPLSPASSY SVSSPRSVDSYSSTQHVP EELDLSSSSQMSPLSLYGENSNLSAEP LKE DKPVTGPRNKTE NGLTPKKKIQVNSKPSIQPKPLLLPAAPKTQTNSSVPA KTIIIIQTVPTLMPLAKQQPIISLQPAPTKGQTVLLSQPTVVQLQAPGVLP SAQPVLAVAGGV TQLPNHVNVVVPAPSANSPVNGKLSVTKPVLQSTMRNV GSDIAVLR RQRMIKNRESACQSRKKKKEYMLG  <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>ポジティブ・コントロール</b>	293, NIH3T3, mouse liver lysate

### 製品の特性

<b>製品の状態</b>	Liquid
<b>保存方法</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>バッファー</b>	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
<b>精製度</b>	Protein G purified
<b>特記事項(精製)</b>	Protein G Chromatography.
<b>ポリ/モノ</b>	モノクローナル
<b>クローン名</b>	70B1413
<b>アイソタイプ</b>	IgG1

## アプリケーション

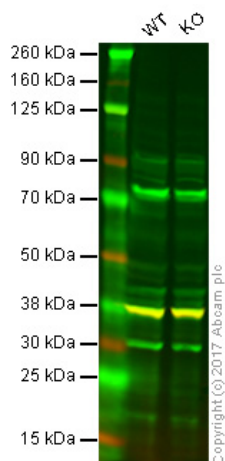
Our [Abpromise guarantee](#) covers the use of **ab11909** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
ICC/IF		Use at an assay dependent concentration.
IHC-P	★★★★★	Use at an assay dependent concentration.
IHC-Fr	★★★★☆	Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
ChIP		Use at an assay dependent concentration.
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★☆	Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 90 kDa (predicted molecular weight: 75 kDa). Expected band sizes of endogenous protein between 66-97 kDa, transfected full length found at 97 kDa. Additional bands at 35/55 kDa have been observed which may correspond to cleavage products.

## ターゲット情報

機能	Transcription factor that acts during endoplasmic reticulum stress by activating unfolded protein response target genes. Binds DNA on the 5'-CCAC[GA]-3' half of the ER stress response element (ERSE) (5'-CCAAT-N(9)-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.
組織特異性	Ubiquitous.
配列類似性	Belongs to the bZIP family. ATF subfamily. Contains 1 bZIP domain.
ドメイン	The basic domain functions as a nuclear localization signal. The basic leucine-zipper domain is sufficient for association with the NF-Y trimer and binding to ERSE.
翻訳後修飾	During unfolded protein response an approximative 50 kDa fragment containing the cytoplasmic transcription factor domain is released by proteolysis. The cleavage seems to be performed sequentially by site-1 and site-2 proteases. N-glycosylated. The glycosylation status may serve as a sensor for ER homeostasis, resulting in ATF6 activation to trigger the unfolded protein response (UPR). Phosphorylated in vitro by MAPK14/P38MAPK.
細胞内局在	Endoplasmic reticulum membrane and Nucleus. Under ER stress the cleaved N-terminal cytoplasmic domain translocates into the nucleus.



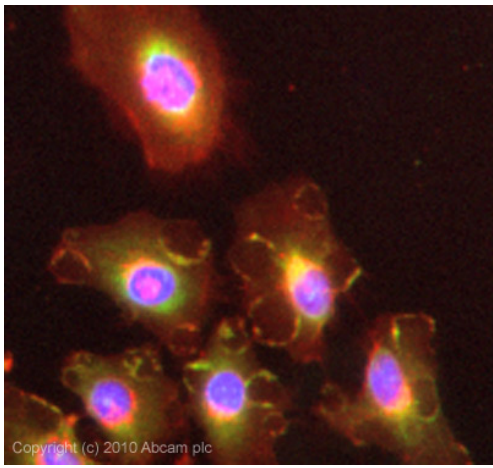
Western blot - Anti-ATF6 antibody [70B1413] - ChIP Grade (ab11909)

**Lane 1:** Wild type HAP1 whole cell lysate (50  $\mu$ g)

**Lane 2:** ATF6 knockout HAP1 whole cell lysate (50  $\mu$ g)

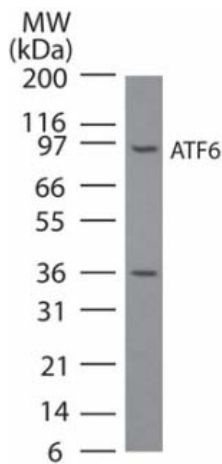
**Lanes 1 - 2:** Merged signal (red and green). Green - ab11909 observed at 95 kDa. Red - loading control, [ab181602](#), observed at 37 kDa.

ab11909 was shown not to recognize ATF6 when ATF6 knockout samples were used, along with additional cross-reactive bands. Wild-type and ATF6 knockout samples were subjected to SDS-PAGE. ab11909 and [ab181602](#) (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



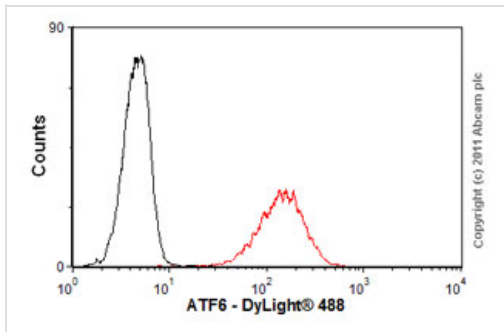
Immunocytochemistry/ Immunofluorescence - Anti-ATF6 antibody [70B1413] - ChIP Grade (ab11909)

ICC/IF image of [ab11909](#) stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ([ab11909](#), 10µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) [ab150113](#)) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Western blot - Anti-ATF6 antibody [70B1413] - ChIP Grade (ab11909)

[ab11909](#) (3ug/ml) staining of mouse ATF6 in NIH3T3 cell lysate by Western Blot. The ~36 kDa observed band has not been characterized; it may be an ATF6 breakdown/cleavage product.



Flow Cytometry - Anti-ATF6 antibody [70B1413] - ChIP Grade (ab11909)

Overlay histogram showing HeLa cells stained with [ab11909](#) (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody ([ab11909](#), 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] ([ab91353](#), 2µg/1x10<sup>6</sup> cells ) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

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