abcam

Product datasheet

Anti-ATF6 antibody [1-7] ab122897

KO 評価済

13 Abreviews 60 References 画像数 5

製品の概要

製品名	Anti-ATF6 antibody [1-7]
製品の詳細	Mouse monoclonal [1-7] to ATF6
由来種	Mouse
特異性	specific to human ATF6 alfa no cross reactivity with mouse ATF6 alfa.
アプリケーション	**適用あり:** WB, IP, ICC/IF
種交差性	**交差種:** Human **非交差種:** Mouse
免疫原	Recombinant fragment (His-tag) corresponding to Human ATF6 (N terminal). Epitope is not determined
ポジティブ・コントロール	293T, HeLa S3 Tet-off, 293 and HeLa cell extracts.
特記事項	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 6 Constituents: 49% PBS, 50% Glycerol
特記事項（精製）	ab122897 was produced from hybridoma cultured in serum-free medium and purified under mild conditions by propriety chromatography processes, then filter sterilized.
ポリ/モノ	モノクローナル
クローン名	1-7

アイソタイプ	IgG2a
軽鎖の種類	kappa

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab122897の使用に適用されます

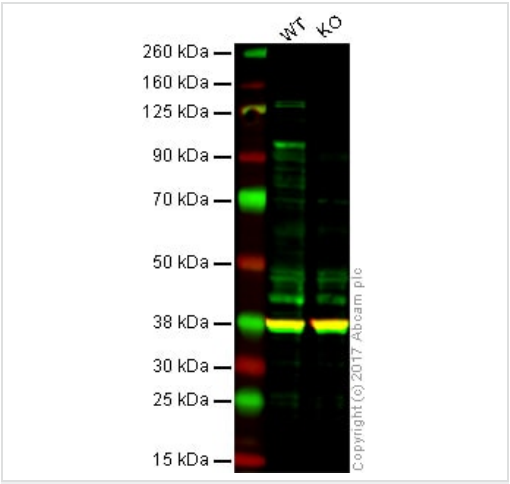
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★☆ (7)	1/500 - 1/1000. Predicted molecular weight: 75 kDa. If clear result not obtained, immunoprecipitation may help.
IP		Use at an assay dependent concentration.
ICC/IF	★★★★☆ (4)	1/100.

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.

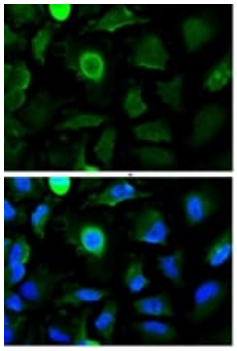
画像



Western blot - Anti-ATF6 antibody [1-7] (ab122897)

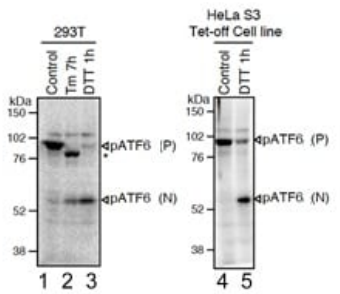
Lane 1: Wild type HAP1 whole cell lysate (50 µg)
Lane 2: ATF6 knockout HAP1 whole cell lysate (50 µg)
Lanes 1 - 2: Merged signal (red and green). Green - ab122897 observed at 95 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab122897 was shown to specifically recact with ATF6 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when ATF6 knockout samples were used. Wild-type and ATF6 knockout samples were subjected to SDS-PAGE. Ab122897 and **ab181602** (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1/500 dilution and 1/10,000 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 1/10,000 dilution for 1hr at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-ATF6 antibody [1-7] (ab122897)

Immunofluorescent analysis of HeLa cells using ab122897 at a dilution of 1/100. The cells were fixed with paraformaldehyde. The secondary antibody was an Alexa Fluor® 488 conjugated goat anti-mouse IgG at a dilution of 1/1000. The antibody staining is shown in the top panel, and the merged image with DAPI counter-staining is shown in the lower panel.



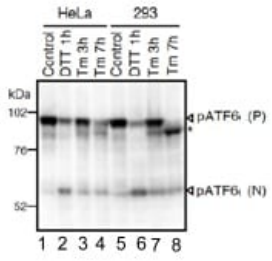
Western blot - Anti-ATF6 antibody [1-7] (ab122897)

All lanes : Anti-ATF6 antibody [1-7] (ab122897) at 1/500 dilution

Lane 1 : 293T cell lysate: control
Lane 2 : 293T cell lysate: treated with 2 µg/ml tunicamycin for 7 hours
Lane 3 : 293T cell lysate: treated with 1mM DTT for 1 hour.
Lane 4 : HeLa S3 Tet-off cell lysate: control
Lane 5 : HeLa S3 Tet-off cell lysate: treated with 1mM DTT for 1 hour.

Predicted band size: 75 kDa

Conversion of precursors pATF6(P) to pATF6(N) in DTT- or tunicamycin-treated cells. ATF6 is constitutively expressed as pATF6a(P) (~90-kDa protein), and converted to pATF6a(N) (>50-kDa protein) in ER-stressed cells.



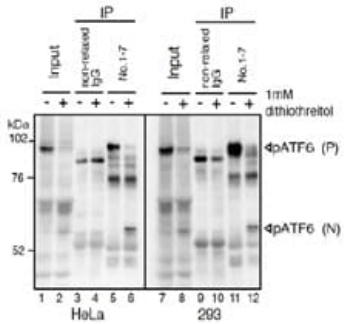
Western blot - Anti-ATF6 antibody [1-7] (ab122897)

All lanes : Anti-ATF6 antibody [1-7] (ab122897) at 1/500 dilution

Lane 1 : HeLa cell extract: control
Lane 2 : HeLa cell extract: treated with 1mM DTT for 1 hour
Lane 3 : HeLa cell extract: treated with 2 µg/ml tunicamycin for 3 hour
Lane 4 : HeLa cell extract: treated with 2 µg/ml tunicamycin for 7 hour
Lane 5 : 293 cell extract: control
Lane 6 : 293 cell extract: treated with 1mM DTT for 1 hour
Lane 7 : 293 cell extract: treated with 2 µg/ml tunicamycin for 3 hour
Lane 8 : 293 cell extract: treated with 2 µg/ml tunicamycin for 7 hour

Predicted band size: 75 kDa

Conversion of precursors pATF6(P) to pATF6(N) in DTT- or tunicamycin-treated cells. ATF6 is constitutively expressed as pATF6a(P) (~90-kDa protein), and converted to pATF6a(N) (>50-kDa protein) in ER-stressed cells.



Immunoprecipitation - Anti-ATF6 antibody [1-7] (ab122897)

ATF6 was detected by Western blot (Input; lanes 1, 2, 7, and 8) using **ab122897** (No. 1-7). After immunoprecipitation (IP) with non-related IgG (IP; lanes 3, 4, 9, and 10) or ab122897 (No. 1-7) (IP; lanes 5, 6, 11, and 12), samples were subjected to SDS-PAGE and analyzed by Western blot using **ab122897** (No. 1-7) and anti-mouse IgG antibody (light chain specific).

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