abcam

Product datasheet

Anti-ATF2 antibody [EPR22938-114] ab239361

Recombinant RabMAb

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Overview

Product name	Anti-ATF2 antibody [EPR22938-114]
Description	Rabbit monoclonal [EPR22938-114] to ATF2
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IP, IHC-P **Unsuitable for:** ChIP or ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: NIH/3T3, RAW 264.7, HEK-293T, K562, PC-12 and Jurkat whole cell lysate. Mouse brain tissue lysate. Rat spleen tissue lysate. IHC-P: Human kidney carcinoma tissue. Human, mouse and rat kidney tissue. Flow Cyt (intra): RAW 264.7 and NIH/3T3 cells. IP: NIH/3T3 whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR22938-114
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab239361 in the following tested applications.

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

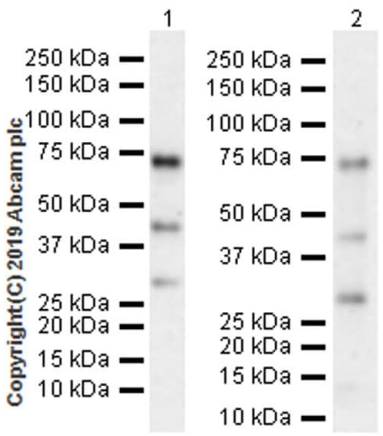
Application	Abreviews	Notes
Flow Cyt (Intra)		1/40.
WB		1/1000.
IP		1/30.
IHC-P		1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for ChIP or ICC/IF.

Target

Function	Transcriptional activator, probably constitutive, which binds to the cAMP-responsive element (CRE) (consensus: 5'-GTGACGT[AC][AG]-3'), a sequence present in many viral and cellular promoters. Interaction with JUN redirects JUN to bind to CRES preferentially over the 12-O-tetradecanoylphorbol-13-acetate response elements (TRES) as part of an ATF2/JUN complex.
Tissue specificity	Abundant expression seen in the brain.
Sequence similarities	Belongs to the bZIP family. ATF subfamily. Contains 1 bZIP domain. Contains 1 C2H2-type zinc finger.
Post-translational modifications	Phosphorylation of Thr-69 and Thr-71 by MAPK14 causes increased transcriptional activity. Also phosphorylated and activated by JNK.
Cellular localization	Nucleus.

Images



Western blot - Anti-ATF2 antibody [EPR22938-114] (ab239361)

All lanes : Anti-ATF2 antibody [EPR22938-114] (ab239361) at 1/1000 dilution

Lane 1 : PC-12 (rat adrenal gland pheochromocytoma), whole cell lysate
Lane 2 : Rat spleen tissue lysate

Lysates/proteins at 20 µg per lane.

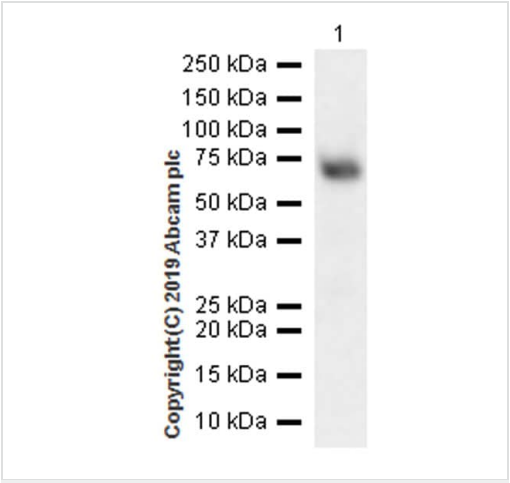
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Observed band size: 70 kDa

The molecular weight and degraded fragments observed are consistent with what has been described in the literature (PMID: 9488727, 10207054, 26901653). Suggest use freshly made lysate to minimize protein degradation.

Exposure time: 3 minutes.

Blocking and Diluting Buffer and concentration: 5% NFDM/TBST.



Western blot - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Anti-ATF2 antibody [EPR22938-114] (ab239361) at 1/1000 dilution + Mouse brain tissue lysate at 20 µg

Secondary

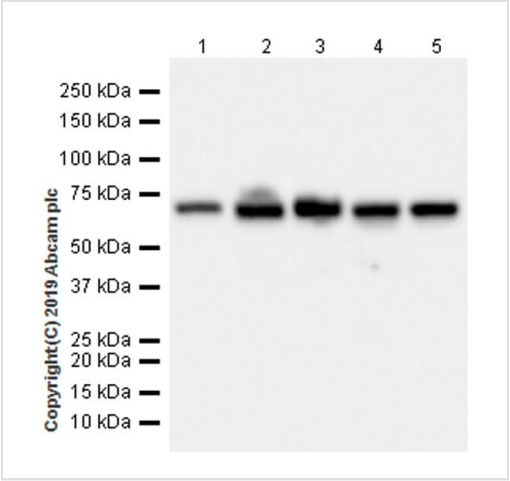
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Observed band size: 70 kDa

The molecular weight observed is consistent with what has been described in the literature (PMID:26901653).

Exposure time: 3 minutes.

Blocking and Diluting Buffer and concentration: 5% NFDM/TBST.



Western blot - Anti-ATF2 antibody [EPR22938-114] (ab239361)

All lanes : Anti-ATF2 antibody [EPR22938-114] (ab239361) at 1/1000 dilution

Lane 1 : NIH/3T3 (mouse embryonic fibroblast), whole cell lysate
Lane 2 : RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate
Lane 3 : HEK-293T (human embryonic kidney epithelial cell), whole cell lysate
Lane 4 : K562 (human chronic myelogenous leukemia lymphoblast), whole cell lysate
Lane 5 : Jurkat (human T cell leukemia T lymphocyte), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

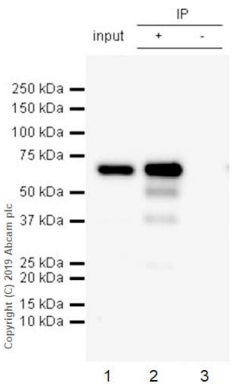
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Observed band size: 70 kDa

The molecular weight observed is consistent with what has been described in the literature (PMID:26901653).

Exposure time: 10 seconds.

Blocking and Diluting Buffer and concentration: 5% NFDM/TBST.



Immunoprecipitation - Anti-ATF2 antibody [EPR22938-114] (ab239361)

ATF2 was immunoprecipitated from 0.35 mg NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate with ab239361 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab239361. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/1000 dilution.

Lane 1: NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate 10µg.

Lane 2: ab239361 IP in NIH/3T3 whole cell lysate.

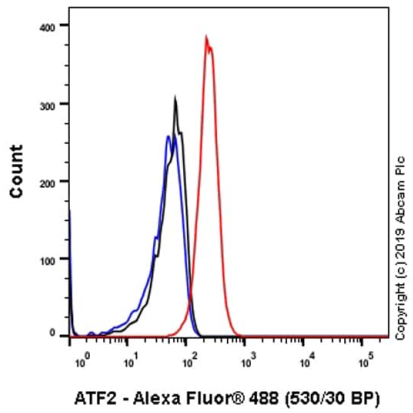
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab239361 in NIH/3T3 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 8 seconds

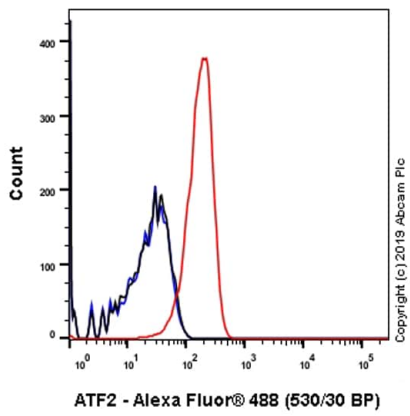
Lysate were made freshly and used in IP test immediately to minimize protein degradation. Incubation time was 2h.

The molecular weight and degraded fragments observed are consistent with what has been described in the literature (PMID: 9488727, PMID: 10207054, PMID:26901653).



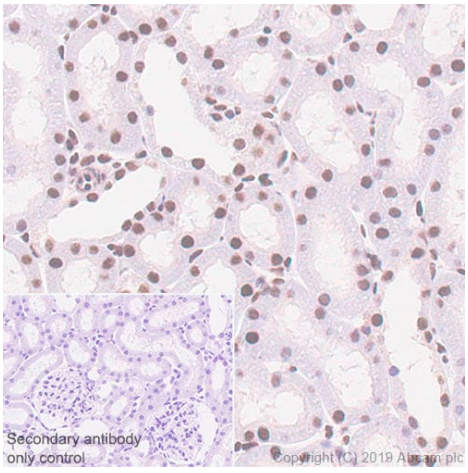
Flow Cytometry (Intracellular) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized NIH/3T3 (Mouse embryonic fibroblast) cells labeling ATF2 with ab239361 at 1/40 (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

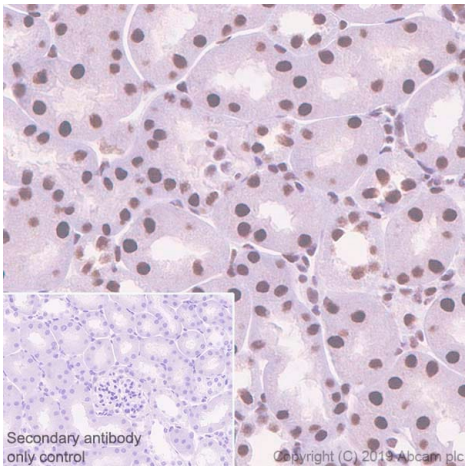
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) cells labeling ATF2 with ab239361 at 1/40 (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling ATF2 with ab239361 at 1/250 dilution (1.76 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on rat kidney is observed. The section was incubated with ab239361 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

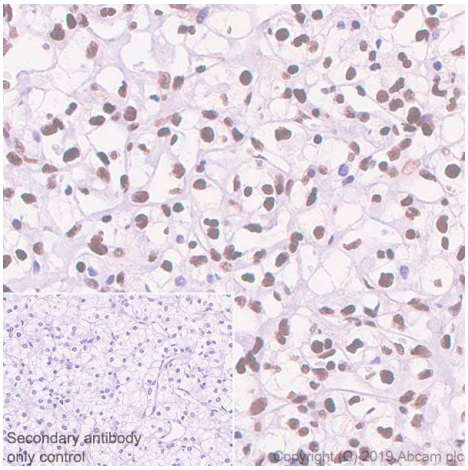
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling ATF2 with ab239361 at 1/250 dilution (1.76 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on mouse kidney is observed. The section was incubated with ab239361 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

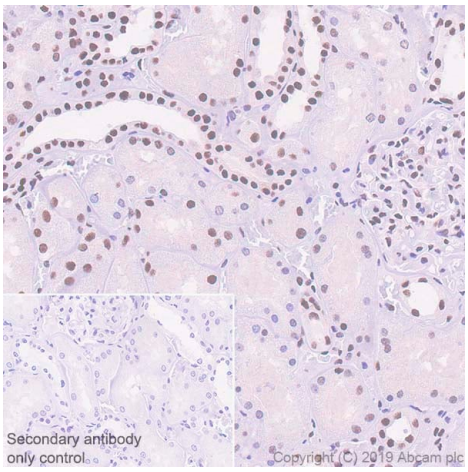
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Immunohistochemical analysis of paraffin-embedded human kidney carcinoma tissue labeling ATF2 with ab239361 at 1/250 dilution (1.76 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on human kidney carcinoma (PMID: 27377902) is observed. The section was incubated with ab239361 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

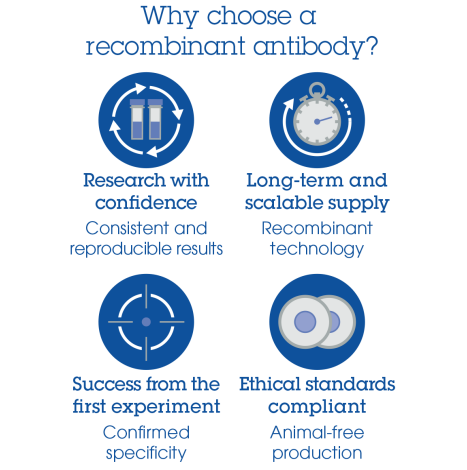
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATF2 antibody [EPR22938-114] (ab239361)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling ATF2 with ab239361 at 1/250 dilution (1.76 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Nuclear staining on human kidney (PMID: 27377902) is observed. The section was incubated with ab239361 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Anti-ATF2 antibody [EPR22938-114] (ab239361)

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