Product datasheet

Anti-ATF4 Antibody

Catalog Number: *A00371-4*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-ATF4 Antibody
Gene Name	ATF4
Source	Rabbit
Isotype	IgG
Species Reactivity	human,mouse,rat
Tested Application	WB,FCM,ICC/IF,Direct ELISA
Contents	500 ug/ml antibody with PBS，0.02% NaN3, 1 mg BSA and 50% glycerol.
Immunogen	E.coli-derived human ATF4 recombinant protein (Position: E10-E210).
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	45-50KD
Dilution Ratios	Western blot (WB): 1:500-2000 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-400 Flow cytometry (FCM): 1-3 µg/1x10^6 cells Direct ELISA: 1:100-1000

Storage

12 months from date of receipt，-20℃ as supplied. 6 months 2 to 8℃ after reconstitution. Avoid repeated freezing and thawing.

Background Information

ATF4, Activating Transcription Factor 4, is also known as CREB2. ATF4 belongs to the large ATF/CREB family of transcription factors which bind DNA via their basic region and dimerize via their leucine zipper domain to form a variety of homo- and heterodimers to regulate gene transcription. It is identified that members of this family share significant sequence similarity within a leucine zipper DNA-binding motif and an adjacent basic region. The ATF4 gene is mapped to chromosome 22. Unlike CREB, which activates transcription from CRE-containing promoters, CREB2 functions as a specific repressor of CRE-dependent transcription. The transcriptional repressor activity resides within the C-terminal leucine zipper and basic domain region of the CREB2 protein.

Selected Validation Data

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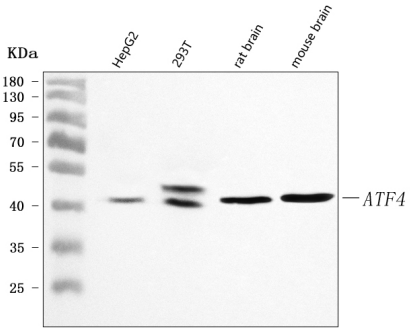

Figure 1. Western blot analysis of anti-ATF4 antibody (A00371-4).
The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: rat brain tissue lysates,
Lane 4: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ATF4 antigen affinity purified polyclonal antibody (A00371-4) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ATF4 at approximately 45-50 kDa. The expected band size for ATF4 is at 39 kDa.

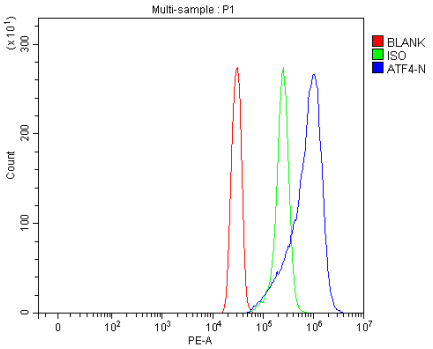

Figure 3. Flow Cytometry analysis of SiHa cells using anti-ATF4 antibody (A00371-4).
Overlay histogram showing SiHa cells stained with A00371-4 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATF4 Antibody (A00371-4, 1 µg/1x10^6 cells). DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 µg/1x10^6 cells) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

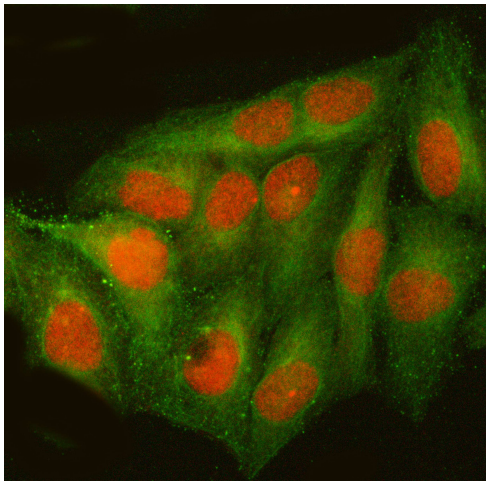

Figure 2. IF analysis of ATF4 using anti-ATF4 antibody (A00371-4) and anti-Tubulin alpha antibody (M03989-3).
ATF4 was detected in an immunocytochemical section of Hela cells. Cy3-Conjugated Anti-rabbit IgG Secondary Antibody (Red) (Catalog # BA1032) and Dylight488-conjugated Anti-mouse IgG Secondary Antibody (Green) (Catalog # BA1126) were used as secondary antibody.

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