

FITC-conjugated ATF4 Polyclonal antibody

Catalog Number: FITC-10835

1 Publications

Basic Information

Catalog Number:

FITC-10835

Size:

1000 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG1279

GenBank Accession Number:

BC022088

GeneID (NCBI):

468

UNIPROT ID:

P18848

Full Name:

activating transcription factor 4 (tax-responsive enhancer element B67)

Calculated MW:

39 kDa

Observed MW:

45-50 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

IF 1:50-1:500

Excitation/Emission maxima wavelengths:

498 nm / 526 nm

Applications

Tested Applications:

FC (Intra), IF/ICC

Cited Applications:

IF

Species Specificity:

human, mouse

Cited Species:

human

Positive Controls:

IF : HepG2 cells, Tunicamycin treated HeLa cells

Background Information

ATF4 is a transcription factor, that accumulates predominantly in osteoblasts, where it regulates terminal osteoblast differentiation and bone formation [PMID: 19016586]. As a basic leucine-zipper (bZip) transcription factor, ATF4 can regulate amino acid metabolism, cellular redox state, and anti-stress responses. It also regulates age-related and diet-induced obesity and glucose homeostasis in mammals, and has conserved metabolic functions in flies [PMID: 19726872]. Due to its location at chromosome 22q13, a region linked to schizophrenia, ATF4 is considered as a positional candidate gene for schizophrenia [PMID: 18163433]. Otherwise, since ATF4 is induced by tumour microenvironmental factors, and regulates processes relevant to cancer progression, it might serve as a potential therapeutic target in cancer. Endogenous ATF4 protein has a molecular mass of 50kd. [PMID: 17726049]. This antibody is a rabbit polyclonal antibody raised against full length human ATF4 antigen. The antibody recognizes the 38kd ATF4 protein and its phosphorylated forms (50kd). ATF4 can bind DNA as a homodimer and as a heterodimer. ATF4 is ubiquitinated by SCF(BTRC) in response to mTORC1 signal, followed by proteasomal degradation and leading to down-regulate expression of SIRT4, so the molecular weight of ATF4 may be 70 kDa.

Notable Publications

Author	Pubmed ID	Journal	Application
Yibo Dong	30181714	Cancer Cell Int	IF

Storage

Storage:

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

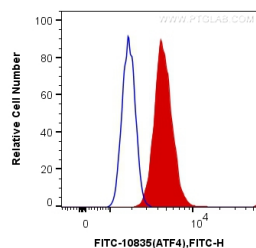
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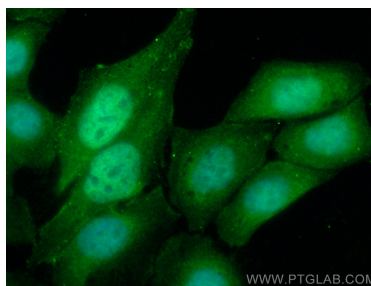
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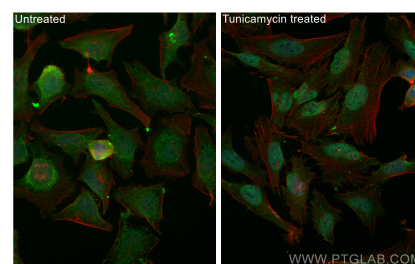
Selected Validation Data



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug FITC Anti-Human ATF4 (FITC-10835) (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using FITC ATF4 antibody (FITC-10835) at dilution of 1:200.



Immunofluorescent analysis of (4% PFA) fixed Tunicamycin treated HeLa cells using FITC ATF4 antibody (FITC-10835) at dilution of 1:200, CL594-Phalloidin (red).