

For Research Use Only

CoraLite® Plus 488-conjugated ATF4 Polyclonal antibody



Catalog Number: CL488-10835

Basic Information

Catalog Number: CL488-10835	GenBank Accession Number: BC022088	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 468	Recommended Dilutions: IF 1:50-1:500
Source: Rabbit	Full Name: activating transcription factor 4 (tax-responsive enhancer element B67)	Excitation/Emission maximum wavelengths: 488 nm / 515 nm
Isotype: IgG	Calculated MW: 39 kDa	
Immunogen Catalog Number: AG1279	Observed MW: 45-50 kDa	

Applications

Tested Applications: FC (Intra), IF	Positive Controls: IF : mouse brain tissue,
Species Specificity: human	

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.

Storage

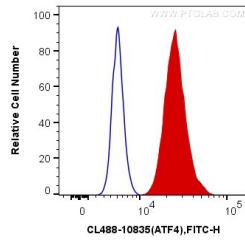
Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

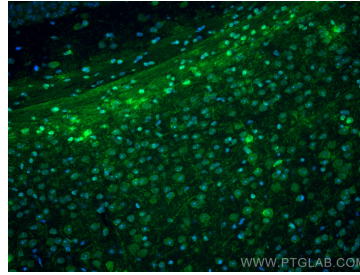
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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Selected Validation Data



1X10⁶ HeLa cells were intracellularly stained with 0.5 ug CoraLite® Plus 488 Anti-Human ATF4 (CL488-10835) (red), or 0.5 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using CoraLite® Plus 488 ATF4 antibody (CL488-10835) at dilution of 1:200.