

For Research Use Only

ATF4 Recombinant antibody, PBS Only

Catalog Number: 81798-1-PBS



Basic Information

Catalog Number:

81798-1-PBS

Concentration:

1 mg/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:

50 kDa

Purification Method:

Protein A purification

CloneNo.:

5N3

Applications

Tested Applications:

WB, IHC, IP, Indirect ELISA

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]. 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 -80°C.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:

PBS only, pH7.3

For technical support and original validation data for this product please contact:

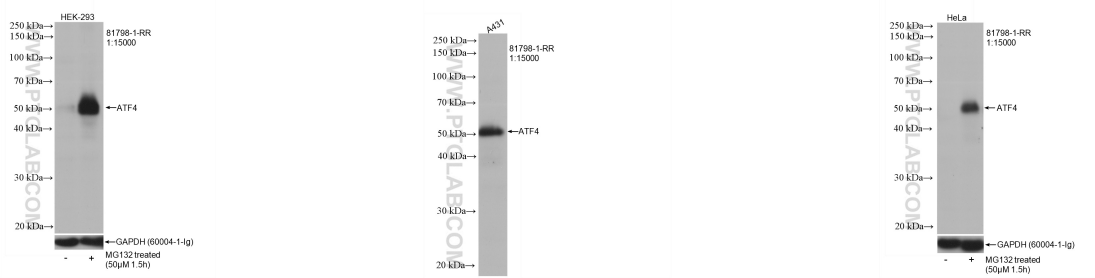
T: 4006900926

E: Proteintech-CN@ptglab.com

W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

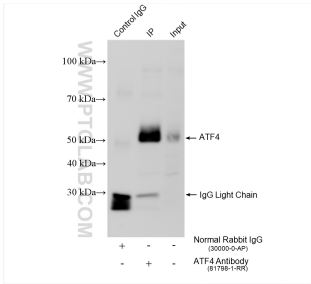
Selected Validation Data



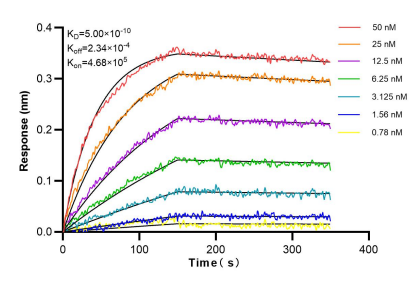
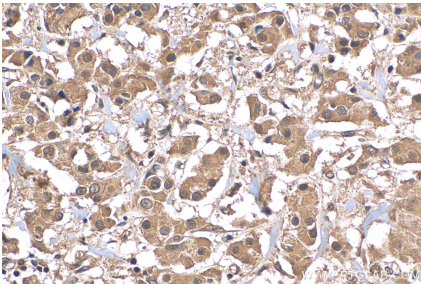
Non-treated HEK-293 and MG132 treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 81798-1-RR (ATF4 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control. This data was developed using the same antibody clone with 81798-1-PBS in a different storage buffer formulation.

A431 cells were subjected to SDS PAGE followed by western blot with 81798-1-RR (ATF4 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 81798-1-PBS in a different storage buffer formulation.

Non-treated HeLa and MG132 treated HeLa cells were subjected to SDS PAGE followed by western blot with 81798-1-RR (ATF4 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control. This data was developed using the same antibody clone with 81798-1-PBS in a different storage buffer formulation.



IP result of anti-ATF4 (IP:81798-1-RR, 4ug; Detection:81798-1-RR 1:4000) with HEK-293 cells lysate 1440 ug. This data was developed using the same antibody clone with 81798-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 81798-1-RR against Human ATF4 were performed. The affinity constant is 0.500 nM.