

For Research Use Only

ATF4 Recombinant antibody, PBS Only (Capture)

Catalog Number: 81798-2-PBS



Basic Information

Catalog Number: 81798-2-PBS	GenBank Accession Number: BC022088	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 468	CloneNo.: 230306B5
Source: Rabbit	UNIPROT ID: P18848	
Isotype: IgG	Full Name: activating transcription factor 4 (tax-responsive enhancer element B67)	
Immunogen Catalog Number: AG1279	Calculated MW: 39 kDa	
	Observed MW: 45-50 kDa	

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), Cytometric bead array, Indirect ELISA

Species Specificity:
human

Product Information

81798-2-PBS targets ATF4 as part of a matched antibody pair:

MP00113-1: 81798-2-PBS capture and 81798-5-PBS detection (validated in Cytometric bead array)

MP00113-3: 81798-2-PBS capture and 81798-4-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

ATF4 is a transcription factor, that accumulates predominantly in osteoblasts, where it regulates terminal osteoblast differentiation and bone formation. 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. Due to its location at chromosome 22q13, a region linked to schizophrenia, ATF4 is considered as a positional candidate gene for schizophrenia. 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.

Storage

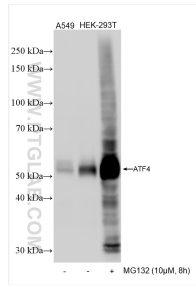
Storage:
Store at -80°C.

Storage Buffer:
100% PBS pH 7.3

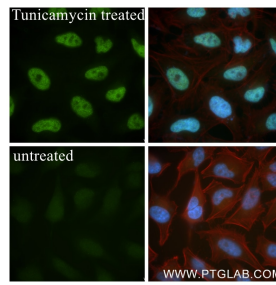
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

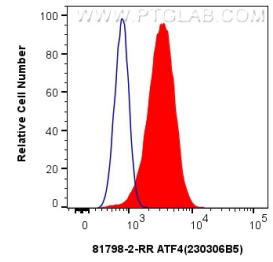
Selected Validation Data



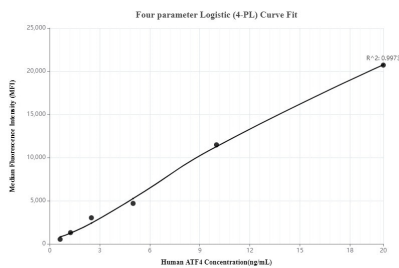
Various lysates were subjected to SDS PAGE followed by western blot with 81798-2-RR (ATF4 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 81798-2-PBS in a different storage buffer formulation.



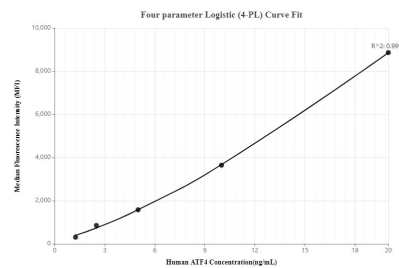
Immunofluorescent analysis of (4% PFA) fixed Tunicamycin treated HeLa cells using ATF4 antibody (81798-2-RR, Clone: 230306B5) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 81798-2-PBS in a different storage buffer formulation.



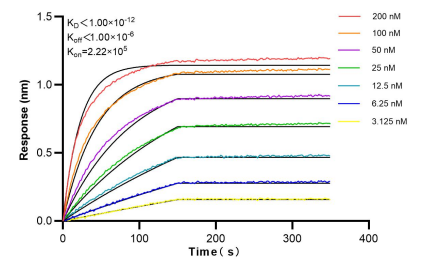
1×10^6 HEK-293 cells were intracellularly stained with 0.25 μ g ATF4 Recombinant antibody (81798-2-RR, Clone:230306B5) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 μ g Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 81798-2-PBS



Cytometric bead array standard curve of MP00113-1, ATF4 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 81798-2-PBS. Detection antibody: 81798-5-PBS. Standard: Ag1279. Range: 0.625-20 ng/mL



Cytometric bead array standard curve of MP00113-3, ATF4 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 81798-2-PBS. Detection antibody: 81798-4-PBS. Standard: Ag1279. Range: 1.25-20 ng/mL



Biolayer interferometry (BLI) kinetic assays of 81798-2-RR against Human ATF4 were performed. The affinity constant is below 1 pM.