

Basic Information

Product Name	Anti-ATF1 Antibody	
Gene Name	ATF1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human ATF1 recombinant protein (Position: M1-V271). Human ATF1 shares 91% amino acid (aa) sequence identity with mouse ATF1.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	38KD	
Dilution Ratios	Western blot(WB):	1:500-2000
	Immunohistochemistry in paraffin section (IHC):	1:50-400
	Flow cytometry (FCM):	1-3 μ g/1x10 ⁶ cells
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

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

Background Information

ATF1, also known as activating transcription factor 1, is a protein that in humans is encoded by the ATF1 gene. It is mapped to 12q13.12. This gene encodes an activating transcription factor, which belongs to the ATF subfamily and bZIP (basic-region leucine zipper) family. It influences cellular physiologic processes by regulating the expression of downstream target genes, which are related to growth, survival, and other cellular activities. This protein is phosphorylated at serine 63 in its kinase-inducible domain by serine/threonine kinases, cAMP-dependent protein kinase A, calmodulin-dependent protein kinase I/II, mitogen- and stress-activated protein kinase and cyclin-dependent kinase 3 (cdk-3). Its phosphorylation enhances its transactivation and transcriptional activities, and enhances cell transformation.

Selected Validation Data

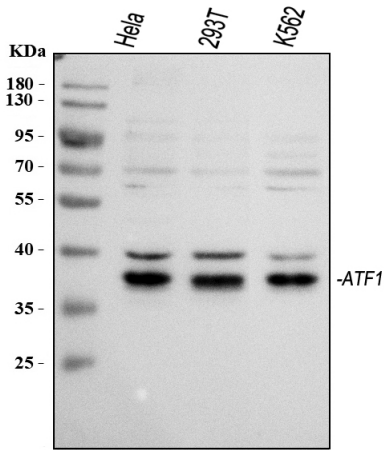


Figure 1. Western blot analysis of anti- ATF1 antibody (PB9130). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human K562 whole cell lysates.

Use rabbit anti- ATF1 1:1000, probed with a goat anti-rabbit IgG- HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ATF1 at approximately 38KDa. The expected band size for ATF1 is at 29KDa.

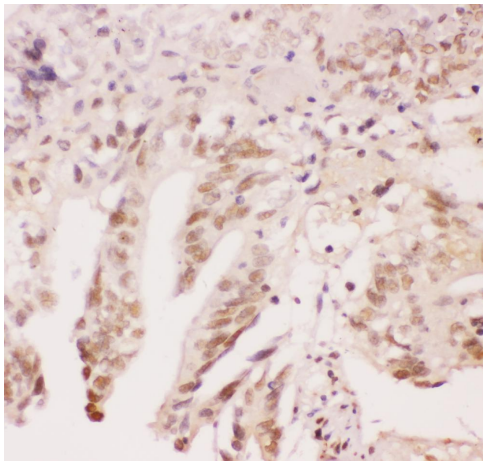


Figure 2. IHC analysis of ATF1 using anti-ATF1 antibody (PB9130). ATF1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ATF1 Antibody (PB9130) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

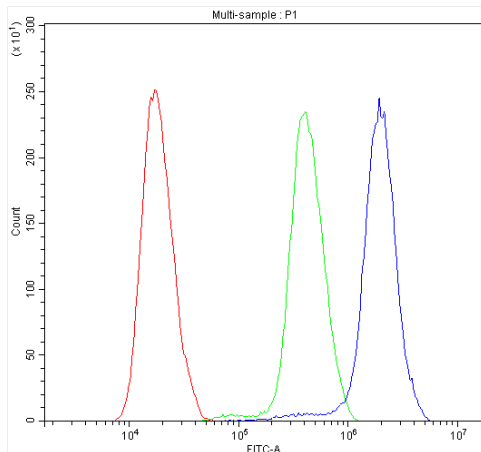


Figure 3. Flow Cytometry analysis of SiHa cells using anti-ATF1 antibody (PB9130). Overlay histogram showing SiHa cells stained with PB9130 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATF1 Antibody (PB9130, 1µg/ 1×10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/ 1×10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1µg/ 1×10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.