

## Basic Information

<b>Product Name</b>	Anti-ATF2 Antibody	
<b>Gene Name</b>	ATF2	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human ATF2 recombinant protein (Position: E93-E450). Human ATF2 shares 99% amino acid (aa) sequence identity with both mouse and rat ATF2.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	65-75 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (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

ATF2, also known as Activating transcription factor 2, is a protein that in humans is encoded by the ATF2 gene. It is mapped to 2q31.1. This gene encodes a transcription factor that is a member of the leucine zipper family of DNA-binding proteins. This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. The protein forms a homodimer or heterodimer with c-Jun and stimulates CRE-dependent transcription. The protein is also a histone acetyltransferase (HAT) that specifically acetylates histones H2B and H4 in vitro, thus, it may represent a class of sequence-specific factors that activate transcription by direct effects on chromatin components. Additional transcript variants have been identified but their biological validity has not been determined.

## Selected Validation Data

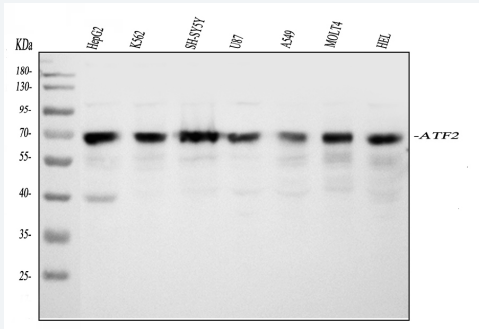


Figure 1. Western blot analysis of anti- ATF2 antibody (PB9131). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: HepG2 whole cell lysates,

Lane 2: K562 whole cell lysates,

Lane 3: SH-SY5Y whole cell lysates,

Lane 4: U87 whole cell lysates,

Lane 5: A549 whole cell lysates,

Lane 6: MOLT4 whole cell lysates,

Lane 7: HEL whole cell lysates.

Use rabbit anti- ATF2 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 ATF2 at approximately 65-70KD. The expected band size for ATF2 is at 49KD.

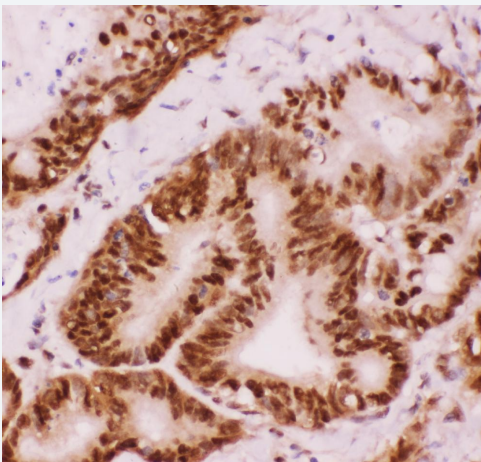


Figure 3. IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ATF2 Antibody (PB9131) 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.

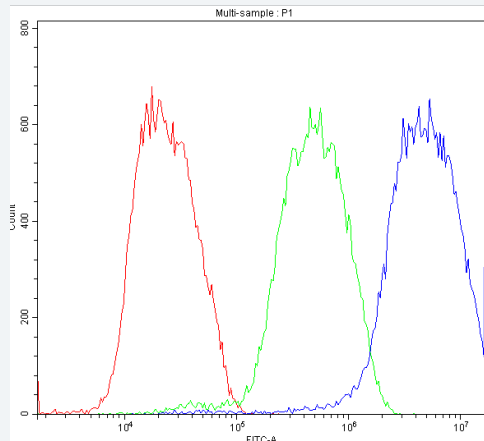


Figure 8. Flow Cytometry analysis of K562 cells using anti-ATF2 antibody (PB9131).

Overlay histogram showing K562 cells stained with PB9131 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATF2 Antibody (PB9131) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.