

## Basic Information

<b>Product Name</b>	Anti-ATF1 Antibody (Clone#7F8)	
<b>Gene Name</b>	ATF1	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2a	
<b>Species Reactivity</b>	human	
<b>Tested Application</b>	WB, IHC, FCM, ICC/IF	
<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 ATF1 recombinant protein (Position: M1-V271). Human ATF1 shares 91% amino acid (aa) sequence identity with mouse ATF1.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	38 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 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.	

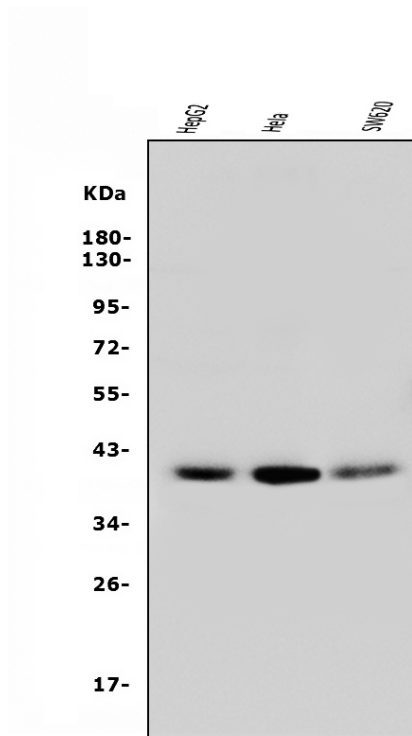
## Storage

12 months from date of receipt, -20°C as supplied.

## 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



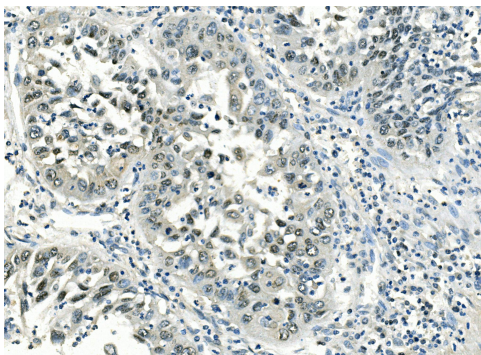
Western blot analysis of ATF1 using anti-ATF1 antibody (M01600-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,

Lane 2: human HELA whole cell lysates,

Lane 3: human SW620 whole cell lysates.

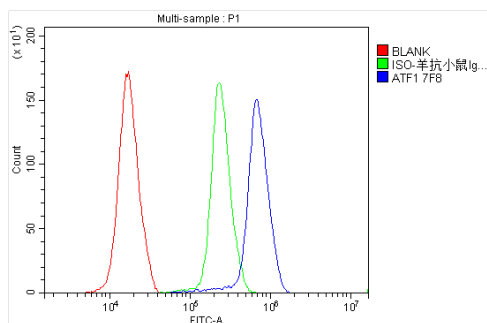
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-ATF1 antigen affinity purified monoclonal antibody (M01600-1) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ATF1 at approximately 38 kDa. The expected band size for ATF1 is at 29 kDa.



IHC analysis of ATF1 using anti-ATF1 antibody (M01600-1).

ATF1 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody.

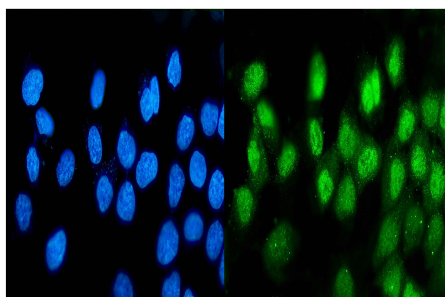
The tissue section was incubated with mouse anti-ATF1 Antibody (M01600-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of K562 cells using anti-ATF1 antibody (M01600-1).

Overlay histogram showing K562 cells stained with M01600-1 (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 mouse anti-ATF1 Antibody (M01600-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse 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.



IF analysis of ATF1 using anti-ATF1 antibody (M01600-1).

ATF1 was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-ATF1 Antibody (M01600-1) at a dilution of 1:100. Dylight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).