

Basic Information

Product Name	Anti-STAT1 Antibody	
Gene Name	STAT1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human STAT1 recombinant protein (Position: S2-A230). Human STAT1 shares 91.2% amino acid (aa) sequence identity with mouse STAT1.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	91KD	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry in paraffin section (IHC):	1:50-400
	Immunocytochemistry in fixed cells:	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

Signal transducer and activator of transcription 1 (STAT1) is a transcription factor which in humans is encoded by the STAT1 gene. The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein can be activated by various ligands including interferon-alpha, interferon-gamma, EGF, PDGF and IL6. This protein mediates the expression of a variety of genes, which is thought to be important for cell viability in response to different cell stimuli and pathogens. Two alternatively spliced transcript variants encoding distinct isoforms have been described.

Selected Validation Data

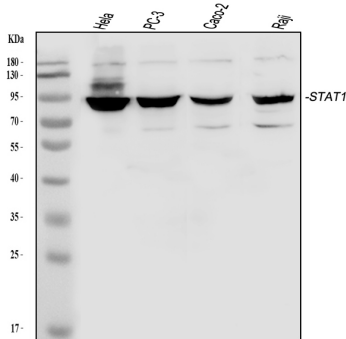


Figure 1. Western blot analysis of STAT1 using anti-STAT1 antibody (A00036-2).

Lane 1: human HeLa whole cell lysates,

Lane 2: human PC-3 whole cell lysates,

Lane 3: human Caco-2 whole cell lysates,

Lane 4: human A549 whole cell lysates,

Lane 5: human K562 whole cell lysates,

Lane 6: human Raji whole cell lysates.

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 STAT1 at approximately 91KD. The expected band size for STAT1 is at 87KD.

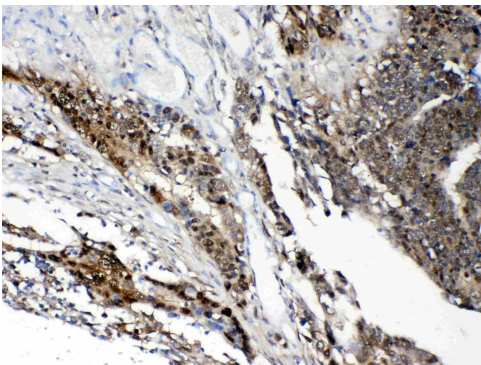


Figure 2. IHC analysis of STAT1 using anti- STAT1 antibody (A00036-2).

STAT1 was detected in paraffin-embedded section of human intestinal cancer tissues. . Biotinylated goat anti-rabbit IgG was used as secondary antibody The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

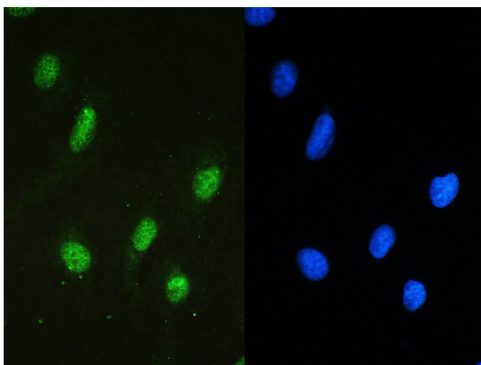


Figure 3. IF analysis of STAT1 using anti- STAT1 antibody (A00036-2)

STAT1 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/mL rabbit . DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

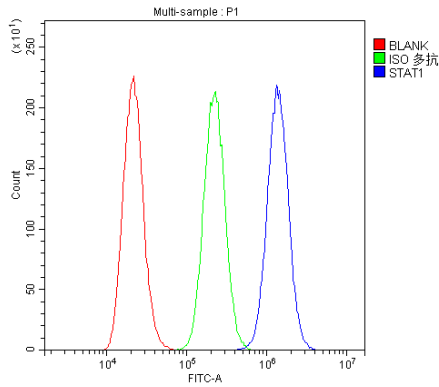


Figure 5. Flow Cytometry analysis of A431 cells using anti-STAT1 antibody (A00036-2).

Overlay histogram showing A431 cells stained with A00036-2 (Blue line).. And then incubated with rabbit anti- STAT1 Antibody (A00036-2, $1\mu\text{g}/1\times 10^6$ cells) for 30 min at 20°C . DyLight488 conjugated goat anti-rabbit IgG (BA1127, $5\text{-}10\mu\text{g}/1\times 10^6$ cells) was used as secondary antibody Isotype control antibody (Green line) was rabbit IgG ($1\mu\text{g}/1\times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.