

## Basic Information

|                           |  |            |
|---------------------------|--|------------|
| <b>Product Name</b>       | Anti-STAT1 Antibody  |            |
| <b>Gene Name</b>          | STAT1  |            |
| <b>Source</b>             | Rabbit   |            |
| <b>Clonality</b>          | Polyclonal   |            |
| <b>Isotype</b>            | IgG  |            |
| <b>Species Reactivity</b> | human  |            |
| <b>Tested Application</b> | WB, IHC, ICC/IF, 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 STAT1 recombinant protein (Position: S2-A230). Human STAT1 shares 91.2% amino acid (aa) sequence identity with mouse STAT1.   |            |
| <b>Concentration</b>      | 500 ug/ml  |            |
| <b>Purification</b>       | Immunogen affinity purified.   |            |
| <b>Observed MW</b>        | 91 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. 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.

## Reference

Anti-STAT1 Antibody被引用在2文献中。

## Selected Validation Data

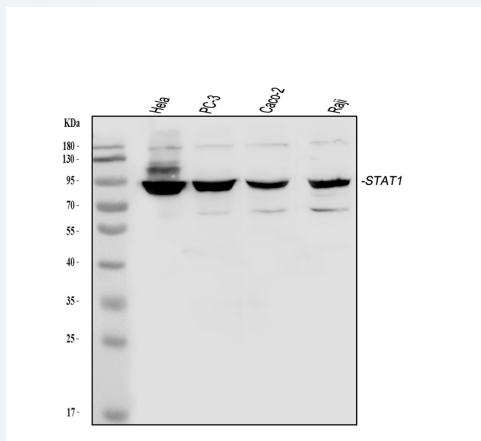


Figure 1. Western blot analysis of STAT1 using anti-STAT1 antibody (A00036-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

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.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-STAT1 antigen affinity purified polyclonal antibody (A00036-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for STAT1 at approximately 91 kDa. The expected band size for STAT1 is at 87 kDa.

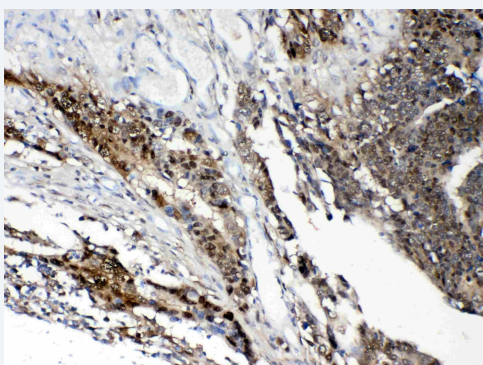


Figure 2. IHC analysis of STAT1 using anti-STAT1 antibody (A00036-2).

STAT1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-STAT1 Antibody (A00036-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1022) as the chromogen.

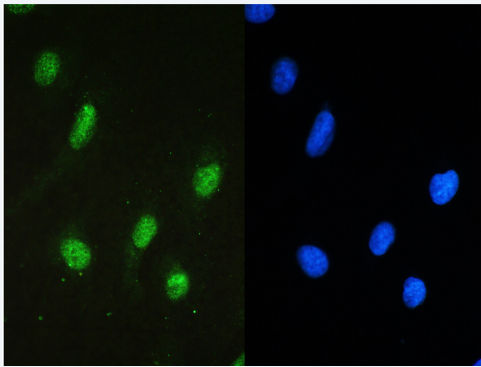


Figure 3. IF analysis of STAT1 using anti- STAT1 antibody (A00036-2) STAT1 was detected in immunocytochemical section of U20S cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu$ g/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.

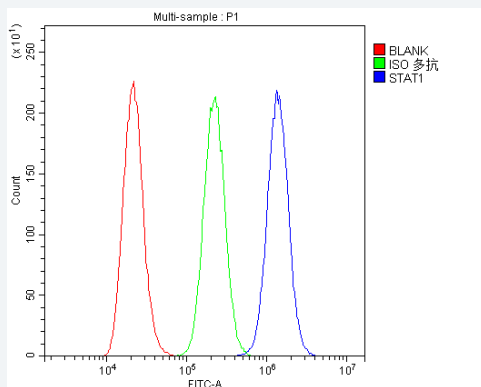


Figure 5. Flow Cytometry analysis of A431 cells using anti-STAT1 antibody (A00036-2). Overlay histogram showing A431 cells stained with A00036-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-STAT1 Antibody (A00036-2) 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.