

## Basic Information

<b>Product Name</b>	Anti-STAT3 Antibody
<b>Gene Name</b>	STAT3
<b>Source</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	human, mouse, rat
<b>Tested Application</b>	WB, 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>	A synthetic peptide corresponding to a sequence at the N-terminus of human STAT3 identical to the related mouse and rat sequences.
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	88 kDa
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200

## 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

The transcription factor, signal transducer and activator of transcription-3 (STAT-3) is the most pleiotropic member of the signal transducer and activator of transcription (STAT) family of transcription factors and mediates pivotal responses for the cytokine family. The mouse STAT3 gene contains 24 exons and spans 30 kb. The translation initiation codon is in exon 2, and the stop codon is in exon 24. STAT3 is mapped to 17q21. It contributes to various physiological processes. Hepatic STAT-3 signaling is thus essential for normal glucose homeostasis and may provide new therapeutic targets for diabetes mellitus.

## Reference

Anti-STAT3 Antibody被引用在34文献中。

## Selected Validation Data

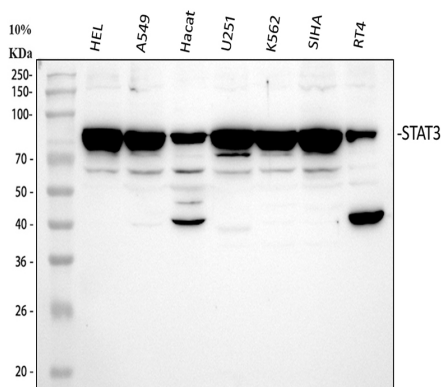


Figure 1. Western blot analysis of STAT3 using anti-STAT3 antibody (PB0540). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HEL whole cell lysates,  
Lane 2: human A549 whole cell lysates,  
Lane 3: human Hacat whole cell lysates,  
Lane 4: human U251 whole cell lysates,  
Lane 5: human K562 whole cell lysates,  
Lane 6: human SiHa whole cell lysates,  
Lane 7: human RT4 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-STAT3 antigen affinity purified polyclonal antibody (PB0540) 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 STAT3 at approximately 88 kDa. The expected band size for STAT3 is at 88 kDa.

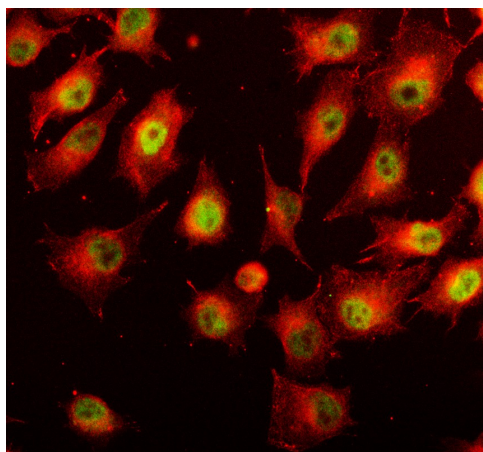


Figure 4. IF analysis of STAT3 using anti-STAT3 antibody (PB0540) and anti-Beta Tubulin antibody (M01857-3). STAT3 was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-STAT3 Antibody (PB0540) at a dilution of 1:100. Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and Dylight594-conjugated Anti-mouse IgG Secondary Antibody (red)(Catalog#BA1141) were used as secondary antibody.

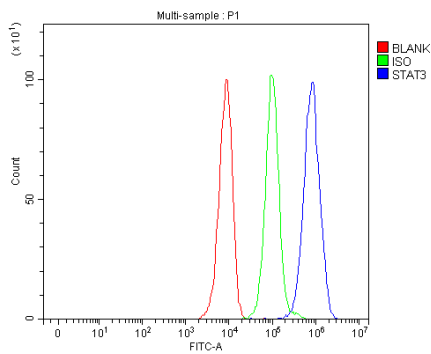


Figure 6. Flow Cytometry analysis of PC-12 cells using anti-STAT3 antibody (PB0540).

Overlay histogram showing PC-12 cells stained with PB0540 (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-STAT3 Antibody (PB0540) 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.