

For Research Use Only

# STAT3 Polyclonal antibody

Catalog Number: 10253-2-AP

Featured Product

381 Publications



## Basic Information

**Catalog Number:**

10253-2-AP

**Size:**

400 µg/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG0360

**GenBank Accession Number:**

BC000627

**GeneID (NCBI):**

6774

**UNIPROT ID:**

P40763

**Full Name:**

signal transducer and activator of transcription 3 (acute-phase response factor)

**Calculated MW:**

770 aa, 88 kDa

**Observed MW:**

88 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:2000-1:16000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF 1:50-1:500

## Applications

**Tested Applications:**

FC, IF/ICC, IHC, IP, WB, ELISA

**Cited Applications:**

WB, IP, IHC, IF, CoIP, ChIP

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, rat, mouse, zebrafish, marmoset

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

**WB:** A549 cells, rat brain tissue, mouse lung tissue, Jurkat cells, A431 cells, mouse brain tissue, K-562 cells, mouse heart tissue, MCF-7 cells, NIH/3T3 cells, HeLa cells, PC-12 cells

**IP:** HeLa cells,

**IHC:** human stomach cancer tissue, human colon cancer tissue, human cervical cancer tissue, mouse colon tissue, human breast cancer tissue

**IF:** HeLa cells,

## Background Information

Signal transducer and activator of transcription 3 (acute-phase response factor) (STAT3, synonyms: APRF, FLJ20882, MGC16063) 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. STAT3 is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. STAT3 mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of STAT3. This antibody is a rabbit polyclonal antibody raised against residues near the N terminus of human STAT3. STAT3 exists three isoforms and the molecular weight of each isoform respectively is 83 kDa, 87 kDa and 88 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Huanru Wang	31575039	Int J Mol Sci	WB,IF
Lin Deng	36170649	J Med Chem	WB
Xun Chen	36179418	Int Immunopharmacol	WB,IHC,IF

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

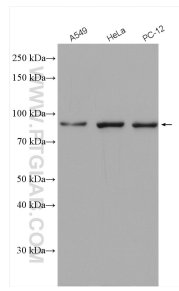
T: 4006900926

E: Proteintech-CN@ptglab.com

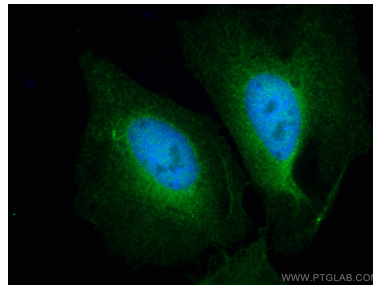
W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

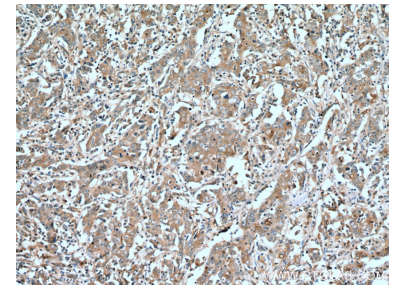
## Selected Validation Data



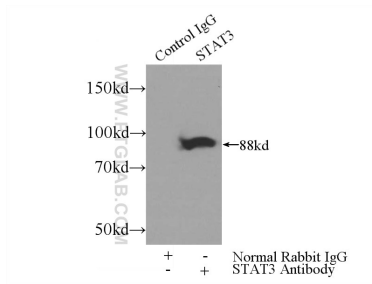
Various lysates were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



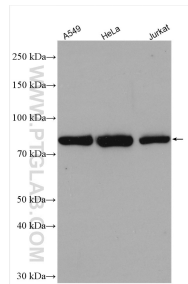
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using STAT3 antibody (10253-2-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). DAPI (blue).



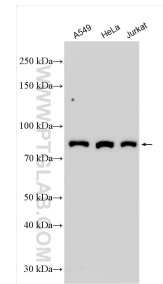
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 10253-2-AP (STAT3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



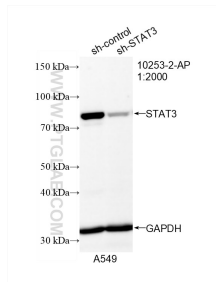
IP result of anti-STAT3 (IP:10253-2-AP, 3ug; Detection:10253-2-AP 1:2000) with HeLa cells lysate 3000ug.



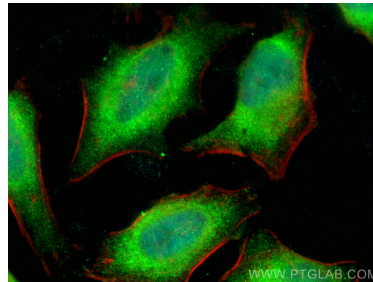
A549 cells were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



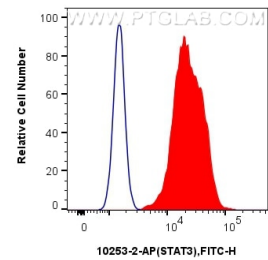
Various lysates were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



WB result of STAT3 antibody (10253-2-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-STAT3 transfected A549 cells.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using STAT3 antibody (10253-2-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). CL594-phalloidin (red).



$1 \times 10^6$  Ramos cells were intracellularly stained with 0.4 ug Anti-Human STAT3 (10253-2-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone: ) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).