

For Research Use Only

STAT3 Polyclonal antibody

Catalog Number: 10253-2-AP

Featured Product

552 Publications



Basic Information

Catalog Number:

10253-2-AP

Size:

150ul, Concentration: 550 ug/ml by Nanodrop;

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 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF, FC (Intra), IP, CoIP, ChIP, RIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, zebrafish, bovine, 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, A431 cells, HeLa cells, Jurkat cells, K-562 cells, MCF-7 cells, PC-12 cells, NIH/3T3 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/ICC: HeLa cells, IFN alpha treated HeLa cells

FC (Intra): Ramos 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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

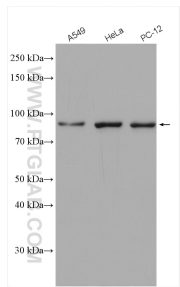
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

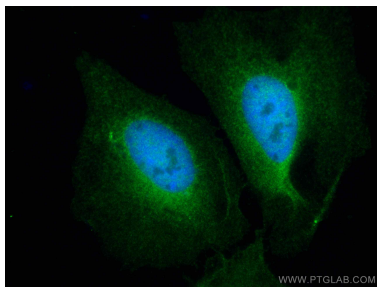
E: proteintech@ptglab.com
W: ptglab.com

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

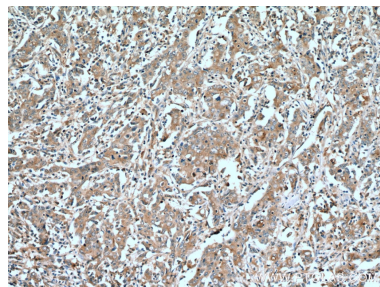
Selected Validation Data



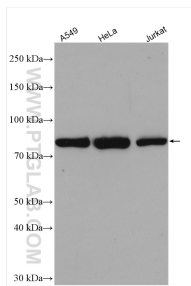
Various lysates were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



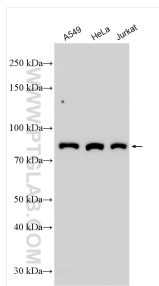
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using STAT3 antibody (10253-2-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). DAPI (blue).



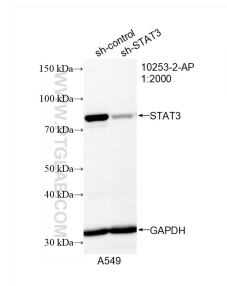
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 10253-2-AP (STAT3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



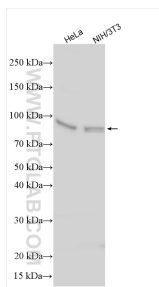
A549 cells were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



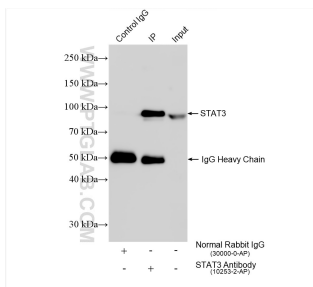
Various lysates were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



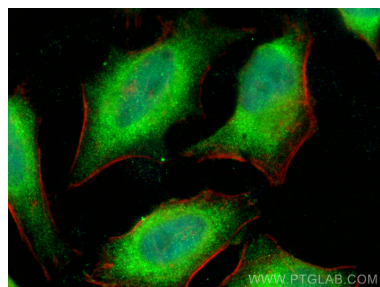
WB result of STAT3 antibody (10253-2-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-STAT3 transfected A549 cells.



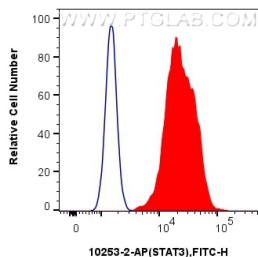
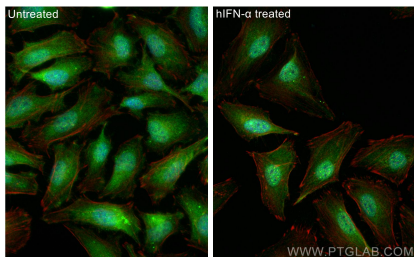
Various lysates were subjected to SDS PAGE followed by western blot with 10253-2-AP (STAT3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



IP result of anti-STAT3 (IP:10253-2-AP, 4ug; Detection:10253-2-AP 1:5000) with HeLa cells lysate 1280 ug.



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).



Immunofluorescent analysis of (-20°C Ethanol) fixed IFN alpha treated HeLa cells using STAT3 antibody (10253-2-AP) at dilution of 1:400 and Multi-rAb CoraLite® Plus 488-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L) (RGAR002), CL594-phalloidin (red).

1X10⁶ 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).