For Research Use Only

STAT3 Monoclonal antibody

Catalog Number:60199-1-Ig Featured Product 63 Publications

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
60199-1-Ig

Size:
150ul , Concentration: 1557 μg/ml by Nanodrop and 1093 μg/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG2a

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:
70-88 kDa

Purification Method:
Protein A purification

CloneNo.:
3G2D12

Recommended Dilutions:
WB 1:1000-1:6000
IP 0.5-4.0 ug 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, IHC, IP, WB, ELISA

Cited Applications:
CoIP, IF, IHC, IP, WB

Species Specificity:
human, rat

Cited Species:
human, rat, zebrafish

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, HeLa cells, Jurkat cells

IP : HeLa cells,

IHC : human cervical cancer tissue, human heart tissue, human breast cancer tissue, human endometrial cancer tissue, human liver tissue, human lung cancer tissue

IF : HepG2 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 mouse monoclonal 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
Wenbin Pei	34650433	Front Pharmacol	IF
Shaofang Chen	28944901	Mol Med Rep	WB
Bin Zhu	31541631	Biochem Pharmacol	WB

Storage

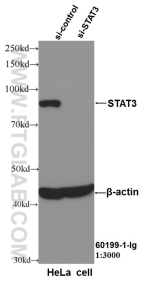
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

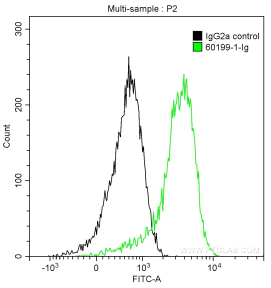
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

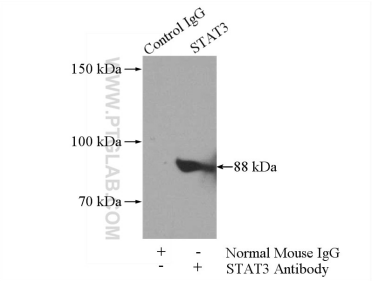
Selected Validation Data



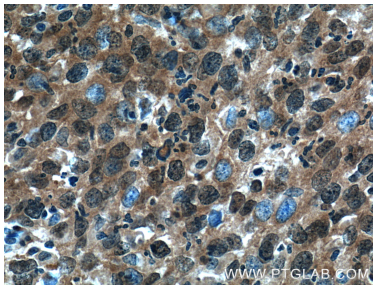
WB result of STAT3 antibody (60199-1-Ig, 1:3000) with si-Control and si-STAT3 transfected HeLa cells.



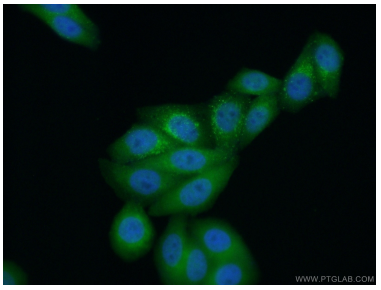
1X10^6 HepG2 cells were intracellularly stained with 0.5 ug Anti-Human STAT3 (60199-1-Ig, Clone:3G2D12) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (green), and 0.5 ug Mouse IgG2a Isotype Control (66360-2-Ig, Clone: K11A1B2A2) (black). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100.



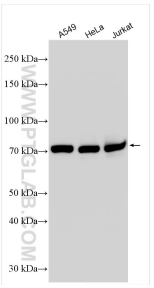
IP result of anti-STAT3 (IP:60199-1-Ig, 5ug; Detection:60199-1-Ig 1:2000) with HeLa cells lysate 1400ug.



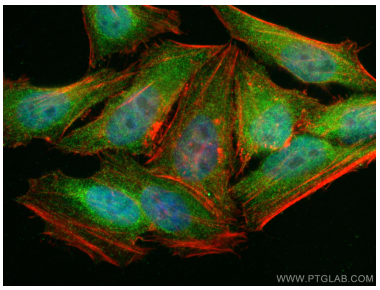
Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 60199-1-Ig (STAT3 Antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (10% Formaldehyde) fixed HepG2 cells using 60199-1-Ig(STAT3 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 60199-1-Ig (STAT3 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using STAT3 antibody (60199-1-Ig, Clone: 3G2D12) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-phalloidin (red).