

For Research Use Only

# STAT4 Monoclonal antibody

Catalog Number: 67568-2-Ig **2 Publications**



## Basic Information

<b>Catalog Number:</b> 67568-2-Ig	<b>GenBank Accession Number:</b> BC031212	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 150ul , Concentration: 2000 ug/ml by Nanodrop and 978 ug/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 6775	<b>CloneNo.:</b> 4A8C9
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q14765	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:250-1:1000 IF/ICC 1:50-1:500
<b>Isotype:</b> IgG1	<b>Full Name:</b> signal transducer and activator of transcription 4	
<b>Immunogen Catalog Number:</b> AG19545	<b>Calculated MW:</b> 748 aa, 86 kDa	
	<b>Observed MW:</b> 86 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, IF/ICC, FC (Intra), ELISA	<b>Positive Controls:</b> <b>WB :</b> HeLa cells, 4T1 cells, HEK-293 cells, HepG2 cells, Jurkat cells, MOLT-4 cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells <b>IHC :</b> human breast cancer tissue, human cervical cancer tissue <b>IF/ICC :</b> HepG2 cells,
<b>Cited Applications:</b> WB, IHC, IF	
<b>Species Specificity:</b> human, mouse, rat	
<b>Cited Species:</b> mouse, rat	
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## Background Information

The JAK/STAT pathway is an extensive signaling pathway downstream of cytokine receptors. STATs are cytosolic proteins with a common structure consisting of an N-terminal oligomerization domain, which favors formation of STAT dimers, followed by a DNA-binding domain and a C-terminal SRC homology-2 (SH2) domain, which is involved in association between STATs and receptors[PMID:22383755]. Signal Transducer and Activator of Transcription 4 (STAT4) is a transcription factor that is activated by IL-12 signaling and promotes Th1-cell differentiation and IFN- $\gamma$  production [PMID:21998209].

## Notable Publications

Author	Pubmed ID	Journal	Application
Jiannan Zhou	38574973	Free Radic Biol Med	IF
Xi-Yun Liu	37875707	Mol Neurobiol	WB,IHC

## Storage

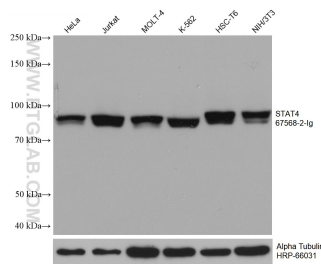
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

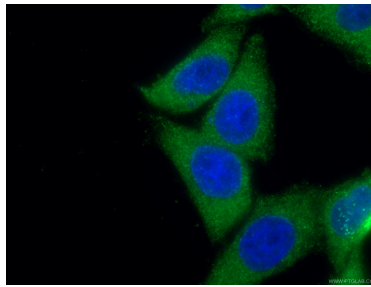
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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

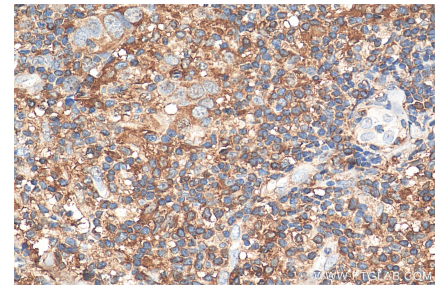
## Selected Validation Data



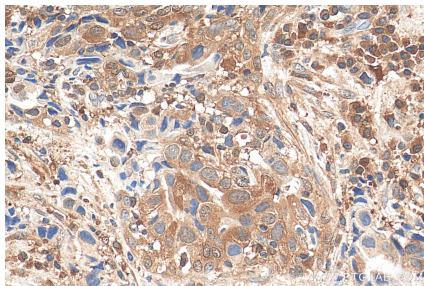
Various lysates were subjected to SDS PAGE followed by western blot with 67568-2-Ig (STAT4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Alpha Tubulin Monoclonal antibody (HRP-66031) as loading control.



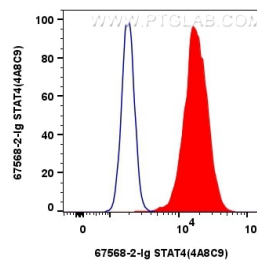
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 67568-2-Ig (STAT4 antibody), at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67568-2-Ig (STAT4 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67568-2-Ig (STAT4 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10<sup>6</sup> HepG2 cells were intracellularly stained with 0.4 ug STAT4 Monoclonal antibody (67568-2-Ig, Clone:4A8C9) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1) (red), or 0.4 ug Mouse IgG1 Isotype Control (MOPC-21) (65124-1-Ig, Clone: MOPC-21) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).