

Stat4 Polyclonal Antibody
Catalog # AP72629**Specification****Stat4 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	Q14765
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

Stat4 Polyclonal Antibody - Additional Information

Gene ID 6775

Other Names

STAT4; Signal transducer and activator of transcription 4

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunoprecipitation: 2-5 ug/mg lysate. ELISA: 1/5000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Stat4 Polyclonal Antibody - Protein Information

Name STAT4

Function

Transcriptional regulator mainly expressed in hematopoietic cells that plays a critical role in cellular growth, differentiation and immune response (PubMed: [10961885](http://www.uniprot.org/citations/10961885), PubMed: [37256972](http://www.uniprot.org/citations/37256972), PubMed: [8943379](http://www.uniprot.org/citations/8943379)). Plays a key role in the differentiation of T-helper 1 cells and the production of interferon-gamma (PubMed: [12213961](http://www.uniprot.org/citations/12213961), PubMed: [35614130](http://www.uniprot.org/citations/35614130)). Participates also in multiple neutrophil functions including chemotaxis and production of the neutrophil extracellular traps (By similarity). After IL12 binding to its receptor IL12RB2, STAT4 interacts with the intracellular domain of IL12RB2 and becomes tyrosine phosphorylated (PubMed: [10415122](http://www.uniprot.org/citations/10415122), PubMed: [7638186](http://www.uniprot.org/citations/7638186)). Phosphorylated STAT4 then homodimerizes and migrates to the nucleus where it can recognize STAT target sequences present in IL12 responsive genes. Although IL12 appears to be the predominant

activating signal, STAT4 can also be phosphorylated and activated in response to IFN-gamma stimulation via JAK1 and TYK2 and in response to different interleukins including IL23, IL2 and IL35 (PubMed:11114383, PubMed:34508746). Transcription activation of IFN-gamma gene is mediated by interaction with JUN that forms a complex that efficiently interacts with the AP-1-related sequence of the IFN-gamma promoter (By similarity). In response to IFN- alpha/beta signaling, acts as a transcriptional repressor and suppresses IL5 and IL13 mRNA expression during response to T-cell receptor (TCR) activation (PubMed:26990433).

Cellular Location

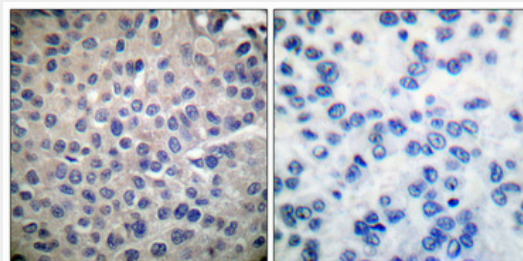
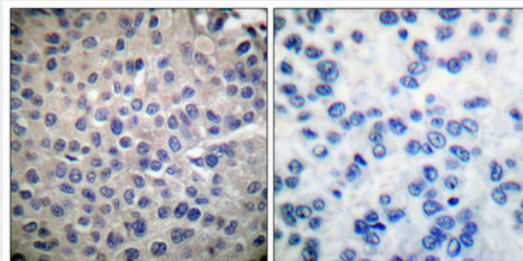
Cytoplasm. Nucleus. Note=Translocated into the nucleus in response to phosphorylation.

Stat4 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Stat4 Polyclonal Antibody - Images



Stat4 Polyclonal Antibody - Background

Carries out a dual function: signal transduction and activation of transcription. Involved in IL12 signaling.