

Stat4 (phospho Tyr693) Polyclonal Antibody

Catalog # AP67184

Product Information

Application WB, IHC-P, IP **Primary Accession Q14765**

Reactivity Human, Mouse, Rat, Monkey

Host Clonality **Polyclonal Calculated MW** 85941

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. IHC-P~~N/A IP~~N/A

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

azide.

Storage Conditions -20°C

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, PubMed: 37256972, PubMed: 8943379). Plays a key role in the differentiation of T-helper 1 cells and the production of interferon-gamma (PubMed:<u>12213961</u>, PubMed:<u>35614130</u>). Also participates 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, PubMed: 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).

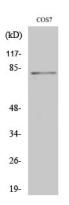
Cellular Location

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

Background

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

Images



Western Blot analysis of various cells using Phospho-Stat4 (Y693) Polyclonal Antibody diluted at 1:2000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.