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Anti-STAT4 (pY693) Antibody

Rabbit polyclonal antibody to STAT4 (pY693)
Catalog # AP60055

Specification

Anti-STAT4 (pY693) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q14765
Other Accession	P42228
Reactivity	**Human, Mouse, Rat, Rabbit, Pig, SARS, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**85941**

Anti-STAT4 (pY693) Antibody - Additional Information

Gene ID 6775

Other Names
Signal transducer and activator of transcription 4

Target/Specificity
Recognizes endogenous levels of STAT4 (pY693) protein.

Dilution
WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200)
IHC~~1:100~500

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-STAT4 (pY693) 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, PubMed:37256972, PubMed:8943379). Plays a key role in the differentiation of T-helper 1 cells and the production of interferon-gamma (PubMed:12213961, PubMed:35614130). 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).

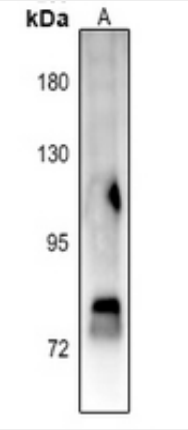
Cellular Location
Cytoplasm. Nucleus. Note=Translocated into the nucleus in response to phosphorylation.

Anti-STAT4 (pY693) 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 Cytomety
- Cell Culture

Anti-STAT4 (pY693) Antibody - Images



Western blot analysis of STAT4 (pY693) expression in PMVEC (A) whole cell lysates.

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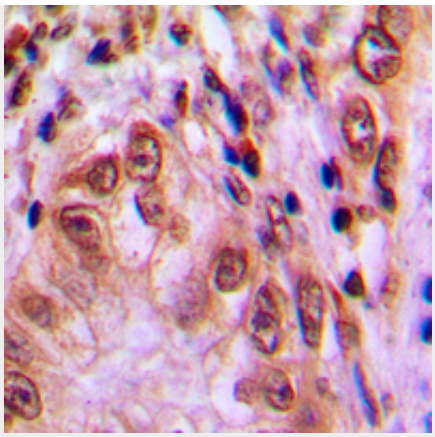

Immunohistochemical analysis of STAT4 (pY693) staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Anti-STAT4 (pY693) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human STAT4 (pY693). The exact sequence is proprietary.