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STAT4 Antibody

Rabbit mAb
Catalog # AP90867

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	Q14765
Reactivity	Human
Clonality	Monoclonal
Other Names	Signal transducer and activator of transcription 4; Stat-4; Stat 4;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	85941

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC 1:50~1:200 IP 1:20 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human STAT4
Description	Receptor-mediated tyrosine phosphorylation of Jak family members triggers phosphorylation of Stat proteins, resulting in their nuclear translocation, binding to specific DNA elements, and subsequent activation of transcription.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

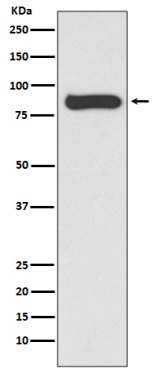
Protein Information

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.

Images



Western blot analysis of STAT4 expression in Hela cell lysate.

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