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Anti-STAT4 Antibody

Catalog # ABO11002

Product Information

Application	WB
Primary Accession	Q14765
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Signal transducer and activator of transcription 4(STAT4) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6775
Other Names	Signal transducer and activator of transcription 4, STAT4
Calculated MW	85941
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Subcellular Localization	Cytoplasm. Nucleus. Translocated into the nucleus in response to phosphorylation.
Source	Eukaryota
Protein Name	Signal transducer and activator of transcription 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human STAT4(1-17aa MSQWNQVQQLEIKFLEQ), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the transcription factor STAT family.

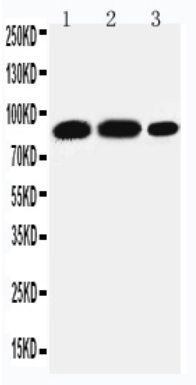
Protein Information

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.

Background

STAT4 is a human gene. The protein encoded by this gene is a member of the STAT protein family of transcription factors. STAT4 is mapped to chromosome 2q32.2-q32.3 by fluorescence in situ hybridization. STAT4 is phosphorylated in response to interleukin-12 and is essential for IL12 signal transduction. Transactivation, electrophoretic mobility shift, and RNA interference analyses showed that Ikaros bound to the STAT4 promoter and was involved in regulation of STAT4 in human T cells.

Images



Anti-STAT4 antibody, ABO11002, Western blottingLane 1: Rat Testis Tissue LysateLane 2: U87 Cell LysateLane 3: HELA Cell Lysate

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