10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

STAT4 Antibody (clone 1C2-1C12)

Mouse Monoclonal Antibody
Catalog # ALS14159

Specification

STAT4 Antibody (clone 1C2-1C12) - Product Information

Application	**WB, IF, IHC**
Primary Accession	Q14765
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**86kDa KDa**

STAT4 Antibody (clone 1C2-1C12) - Additional Information

Gene ID 6775

Other Names
Signal transducer and activator of transcription 4, STAT4

Target/Specificity
Human STAT4

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
STAT4 Antibody (clone 1C2-1C12) is for research use only and not for use in diagnostic or therapeutic procedures.

STAT4 Antibody (clone 1C2-1C12) - 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:8943379, PubMed:10961885, PubMed:37256972). Plays a key role in the differentiation of T-helper 1 cells and the production of interferon-gamma (PubMed:12213961, PubMed: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:7638186, PubMed:10415122).

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).

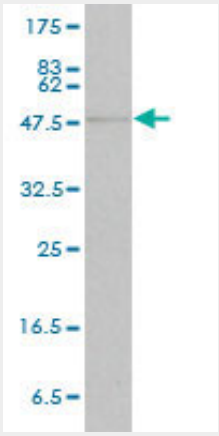
Cellular Location
Cytoplasm. Nucleus. Note=Translocated into the nucleus in response to phosphorylation.

STAT4 Antibody (clone 1C2-1C12) - Protocols

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

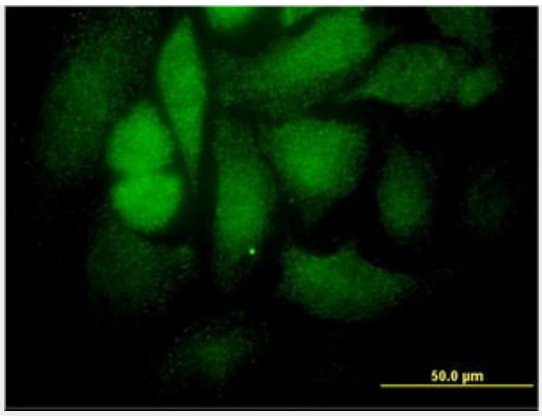
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

STAT4 Antibody (clone 1C2-1C12) - Images

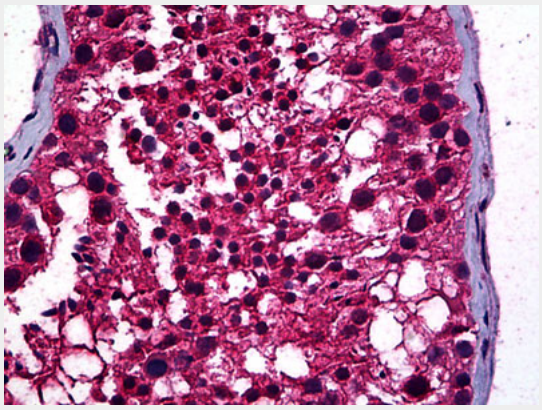


STAT4 monoclonal antibody clone 1C2-1C12. Western blot of STAT4 expression in human liver.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Immunofluorescence of monoclonal antibody to STAT4 on HeLa cell. [antibody concentration 10 ug/ml]



Anti-STAT4 antibody IHC of human testis.

STAT4 Antibody (clone 1C2-1C12) - Background

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

STAT4 Antibody (clone 1C2-1C12) - References

Xu X.,et al.Submitted (AUG-1996) to the EMBL/GenBank/DDBJ databases.
Yao B.B.,et al.Arch. Biochem. Biophys. 368:147-155(1999).
Naeger L.K.,et al.J. Biol. Chem. 274:1875-1878(1999).
Kariuki S.N.,et al.J. Immunol. 182:34-38(2009).
Sjoeblom T.,et al.Science 314:268-274(2006).