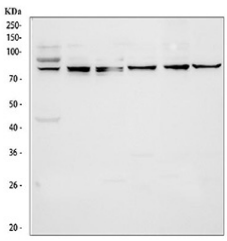
STAT4 Antibody / Signal transducer and activator of transcription 4 (R30777)

Catalog No.	Formulation	Size
R30777	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q14765
Applications	Western blot: 0.5-1ug/ml
Limitations	This STAT4 antibody is available for research use only.



Western blot testing of 1) human A549, 2) human Jurkat, 3) human HEL, 4) rat testis, 5) mouse testis and 6) mouse thymus tissue lysate with STAT4 antibody. Predicted molecular weight: ~86 kDa.

Description

STAT4 (Signal Transducer and Activator of Transcription 4) is a cytokine-activated transcription factor that functions downstream of the IL-12 receptorÃ¢Â€Â“JAK axis. Upon phosphorylation, STAT4 forms dimers, translocates to the nucleus, and regulates genes that drive Th1 differentiation, IFN-ÃŽÂ³ production, and cytotoxic programming in T and NK cells. These activities position STAT4 as a central coordinator of type 1 immunity and inflammation control.

STAT4 integrates inputs from IL-12 and related cytokines to calibrate effector function, tissue homing, and memory

formation. Its activation state (total vs. phospho-STAT4) serves as a quantitative readout of pathway engagement in primary cells and model systems, supporting studies in basic immunology, signaling networks, and therapeutic mechanism-of-action research.

The **STAT4 antibody** enables specific detection of endogenous STAT4 in applications such as western blot, immunohistochemistry, immunofluorescence, and flow cytometry. Researchers use the STAT4 antibody to measure expression levels, assess nuclear translocation, and monitor phosphorylation dynamics following cytokine stimulation. With high specificity and reproducible performance, the STAT4 antibody supports rigorous analysis of cytokine signaling and T cell biology.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the STAT4 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 1-17 (MSQWNQVQQLEIKFLEQ) were used as the immunogen for this STAT4 antibody (100% homologous in human, mouse and rat).

Storage

After reconstitution, the STAT4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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