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Store at -20C
#5097

Stat4 (2A2) Mouse mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 81	Source/Isotype: Mouse IgG1	UniProt ID: #Q14765	Entrez-Gene Id: 6775
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Stat4 (2A2) Mouse mAb detects endogenous levels of total Stat4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein corresponding to residues 633-652 of human Stat4 protein.

Background

The Jak-Stat signaling pathway is utilized by a large number of cytokines, growth factors, and hormones (1). 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. The remarkable range and specificity of responses regulated by the Stats is determined, in part, by the tissue-specific expression of different cytokine receptors, Jaks, and Stats, as well as by the combinatorial coupling of various Stat members to different receptors (2). Stat4 is predominantly expressed in the spleen, thymus, and testis and has been most extensively investigated as the mediator of IL-12 responses (3-8). Activation of Stat4 is associated with phosphorylation at Tyr693 (9).

Background References

1. Darnell, J.E. et al. (1994) *Science* 264, 1415-1421.
2. Leonard, W.J. and O'Shea, J.J. (1998) *Annu. Rev. Immunol.* 16, 293-322.
3. Zhong, Z. et al. (1994) *Proc. Natl. Acad. Sci. USA* 91, 4806-4810.
4. Yamamoto, K. et al. (1994) *Mol. Cell Biol.* 14, 4342-4349.
5. Jacobson, N.G. et al. (1995) *J. Exp. Med.* 181, 1755-1762.
6. Bacon, C.M. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 7307-7311.
7. Thierfelder, W.E. et al. (1996) *Nature* 382, 171-174.
8. Kaplan, M.H. et al. (1996) *Nature* 382, 174-177.
9. Visconti, R. et al. (2000) *Blood* 96, 1844-52.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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