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#5167

Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Sepharose® Bead Conjugate)

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

Applications: IP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 84, 91	Source/Isotype: Rabbit IgG	UniProt ID: #P42224	Entrez-Gene Id: 6772
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Product Usage Information

Application

Immunoprecipitation

Dilution

1:20

Storage

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

Specificity/Sensitivity

Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Sepharose® Bead Conjugate) detects endogenous levels of Stat1 only when phosphorylated at Tyr701. The antibody detects phosphorylated Tyr701 of p91 Stat1 and also the p84 splice variant. This antibody does not cross-react with the corresponding phosphotyrosines of other Stat proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr701 of human Stat1.

Description

This Cell Signaling Technology antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated Sepharose® beads. Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Sepharose® Bead Conjugate) is useful for the immunoprecipitation of Stat1 phosphorylated at Tyr701. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb #9167.

Background

The Stat1 transcription factor is activated in response to a large number of ligands (1) and is essential for responsiveness to IFN-α and IFN-γ (2,3). Phosphorylation of Stat1 at Tyr701 induces Stat1 dimerization, nuclear translocation, and DNA binding (4). Stat1 protein exists as a pair of isoforms, Stat1α (91 kDa) and the splice variant Stat1β (84 kDa). In most cells, both isoforms are activated by IFN-α, but only Stat1α is activated by IFN-γ. The inappropriate activation of Stat1 occurs in many tumors (5). In addition to tyrosine phosphorylation, Stat1 is also phosphorylated at Ser727 through a p38 mitogen-activated protein kinase (MAPK)-dependent pathway in response to IFN-α and other cellular stresses (6). Serine phosphorylation may be required for the maximal induction of Stat1-mediated gene activation.

Background References

1. Heim, M.H. (1999) *J Recept Signal Transduct Res* 19, 75-120.
2. Durbin, J.E. et al. (1996) *Cell* 84, 443-50.
3. Meraz, M.A. et al. (1996) *Cell* 84, 431-42.
4. Ihle, J.N. et al. (1994) *Trends Biochem Sci* 19, 222-7.
5. Frank, D.A. (1999) *Mol Med* 5, 432-56.
6. Wen, Z. et al. (1995) *Cell* 82, 241-50.

Species Reactivity

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

Applications Key

IP: Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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