

Stat1 (Tyr-701), phospho-specific

Cat. # SM1351

Host Mouse Monoclonal IgG1

Size 100 µl

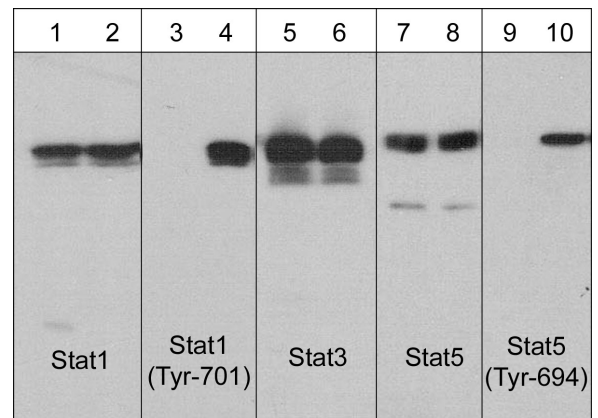
Background:

The stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Stat1 is expressed as two variants of 84 and 91 kDa. Stat1 proteins contain SH2 and SH3 domains, and are components of the interferon-stimulated gene factor 3 (ISGF3) complex. This complex is the primary transcription activator induced by the binding of interferon to its receptors. In response to activation by various cytokines and growth factors, stat1 subunits become phosphorylated at tyrosine 701. This leads to translocation of stat1 to the nucleus, resulting in formation of an active ISGF3 complex. Active ISGF3 modulates the transcription of the interferon-stimulated genes. Thus, phosphorylation of Tyr-701 is critical for gene expression mediated by various cytokines and growth factors.

References

Darnell, J.E. (1997) Science 277:1630.

Fu, X.Y. et al. (1993) Cell 74:1135.



Western blot analysis of human A431 cells untreated (lanes 1, 3, 5, 7, & 9) or treated with EGF (100 nM) for 60 min (lanes 2, 4, 6, 8, & 10). The blots were probed with anti-Stat1 (lanes 1 & 2), anti-Stat1 (Tyr-701) (lanes 3 & 4), anti-Stat3 (lanes 5 & 6), anti-Stat5 (lanes 7 & 8), and anti-Stat5 (Tyr-694) (lanes 9 & 10).

Immunogen:

Clone (M135) was generated from a synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 701 of human Stat1. This peptide sequence has high homology to the conserved tyrosine site in rat and mouse stat1.

Applications:

WB 1:1000

ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

SM2491 Stat1 Mouse Monoclonal

SM2631 Stat3 (N-terminal region) Mouse Monoclonal

SM2511 Stat5 (C-terminal region) Mouse Monoclonal

SM1481 Stat5 (Tyr-694), phospho-specific Mouse Monoclonal

PM1381 p38a MAP Kinase (C-terminal) Mouse Monoclonal

PM1391 p38 MAP Kinase (Thr-180/Tyr-182), phospho-specific Mouse Monoclonal

Buffer and Storage:

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

The antibody detects 84 and 91 kDa* stat1 variants on SDS-PAGE immunoblots of human Jurkat and A431 cells treated with pervanadate, but does not detect these variants in control cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
tech: info@ecmbiosciences.com

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