

Stat1

Cat. # SM2491

Host Mouse Monoclonal IgG1

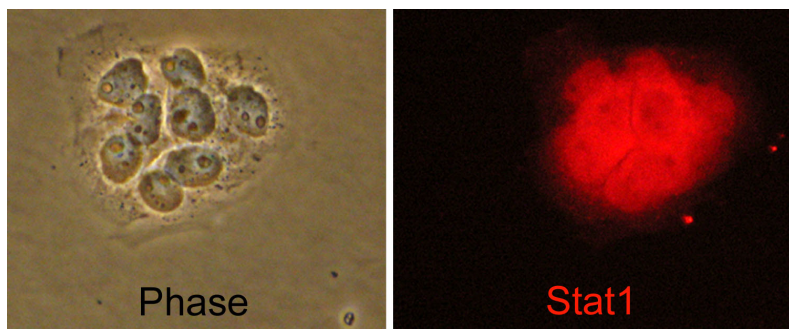
Size 100 µl

Background:

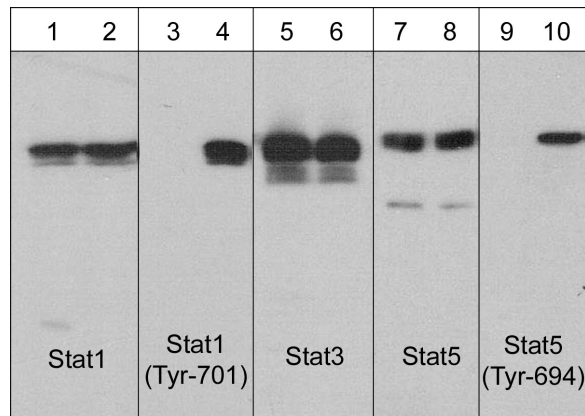
The stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Stat1 is expressed as two variants of 84 and 91 kDa. Stat1 proteins contain SH2 and SH3 domains, and are components of the interferon-stimulated gene factor 3 (ISGF3) complex. This complex is the primary 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.



Immunocytochemical labeling of Stat1 in human A431 cells. The cells were labeled with mouse monoclonal Stat1 (SM2491) antibody (Right), then the antibody was detected using appropriate secondary antibody conjugated to DyLight 594. Corresponding phase image is shown to the left.



Western blot analysis of 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).

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Stat1

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Host Mouse Monoclonal IgG1
Size 100 µl

Immunogen:

Clone (M249) was generated from a recombinant protein from human Stat1. This sequence has high homology to the conserved tyrosine site in rat and mouse stat1 α and β .

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.

Applications:

WB	1:1000	ICC	1:100
ELISA	1:2000		
IP	1:100		

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 1hour at room temperature.

Specificity:

The antibody detects 84 and 91 kDa* stat1 variants on SDS-PAGE immunoblots of human Jurkat and A431 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.

Related Products:

SM1351 Stat1 (Tyr-701), phospho-specific 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

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