

Stat5 (Tyr-694), phospho-specific

Cat. # SM1481

Host Mouse Monoclonal IgG1

Size 100 µl

Background:

The stat proteins function both as cytoplasmic signal transducers and as activators of transcription. Stat5 is activated in response to a wide variety of ligands including IL-2, GM-CSF, growth hormone and prolactin. Phosphorylation at Tyr-694 is required for Stat5A activation. Stat5 has been found to be constitutively active in some leukemic cell types. Phosphorylated Stat5 is found in some endothelial cells treated with IL-3, which suggests its involvement in angiogenesis and cell motility. Both Stat5A (Tyr-694) and Stat5B (Tyr-699) are independently regulated and activated in various cell types. For instance, both isoforms are activated in response to IFN-alpha in B cells, but only Stat5alpha is phosphorylated in response to IFN-alpha in HeLa cells.

References

- Gouilleux, F. et al. (1994) EMBO J. 13:4361.
Wakao, H. et al. (1994) EMBO J. 13:2182.
Meinke, A. et al. (1996) Mol. Cell. Biol. 16:6937-6944.
Darnell, J.E. (1997) Science 277:1630.

Immunogen:

Clone (M148) was generated from a synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 694 of human Stat5A. This peptide sequence is identical to tyrosine 699 in human Stat5B, and has high homology to the conserved tyrosine site in rat and mouse Stat5A/B.

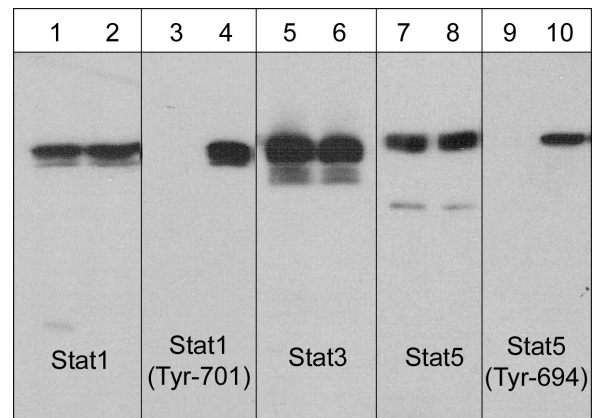
Applications:

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
SM1351 Stat1 (Tyr-701), phospho-specific Mouse Monoclonal
SM2631 Stat3 (N-terminal region) Mouse Monoclonal
SM2511 Stat5 (C-terminal region) Mouse Monoclonal
PM1381 p38a MAP Kinase (C-terminal) Mouse Monoclonal
PM1391 p38 MAP Kinase (Thr-180/Tyr-182), phospho-specific Mouse Monoclonal



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).

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 a 92 kDa* band corresponding to Stat5A on SDS-PAGE immunoblots of human A431 cells treated with EGF, but does not detect this band 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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