

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 α in B cells, but only Stat5A is phosphorylated in response to IFN α in HeLa cells.

Background References

Wakao, H. et al. (1994) EMBO J. 13:2182.

Gouilleux, F. et al. (1994) EMBO J. 13:4361.

Meinke, A. et al. (1996) Mol. Cell. Biol. 16:6937-6944.

Applications

Blocking 1:1000

ELISA 50 ng/well

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.

Specificity

This peptide is an unphosphorylated control peptide for Stat5 (Tyr-694) phospho-specific antibody (SM1481). The peptide can be used along with phosphorylated Stat5 (Tyr-694) peptide (SX1485) in ELISA, Western blot and immunocytochemistry antibody blocking experiments.

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

Peptide Sequence

Unphosphorylated Stat5 (Tyr-694) synthetic peptide corresponds 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.

Buffer and Storage

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.

Store at -20°C. Stable for 1 year.

Related Products

SM1351 Stat1 (Tyr-701), phospho-specific Mouse Monoclonal

SM2511 Stat5 (C-terminal region) Mouse Monoclonal

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

SX1485 phospho-Stat5 (Tyr-694) Blocking Peptide

SK6030 Stat Phospho-Regulation Antibody Sampler Kit

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