

Phospho-Stat5 (Tyr694) (14H2) Mouse mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M	Endogenous	90	Mouse IgG1	#P42229, #P51692	6776, 6777

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA, 50% glycerol, and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

For a carrier free (BSA and azide free) version of this product see product #33857.

Specificity/Sensitivity

Phospho-Stat5 (Tyr694) (14H2) Mouse mAb detects endogenous levels of Stat5a only when phosphorylated at Tyr694 and Stat5b when phosphorylated at Tyr699. It does not cross-react with the corresponding phospho-tyrosines of other Stat proteins.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr694 of mouse Stat5a.

Background

Stat5 is activated in response to a wide variety of ligands, including IL-2, GM-CSF, growth hormone, and prolactin. Phosphorylation at Tyr694 is obligatory for Stat5 activation (1,2). This phosphorylation is mediated by Src upon erythropoietin stimulation (3). Stat5 is constitutively active in some leukemic cell types (4). Phosphorylated Stat5 is found in some endothelial cells treated with IL-3, which suggests its involvement in angiogenesis and cell motility (5). Stat5a and Stat5b are independently regulated and activated in various cell types. For instance, interferon treatment predominantly activates Stat5a in U-937 cells and Stat5b in HeLa cells (6).

Background References

1. Gouilleux, F. et al. (1994) *EMBO J* 13, 4361-9.
2. Wakao, H. et al. (1994) *EMBO J* 13, 2182-91.
3. Okutani, Y. et al. (2001) *Oncogene* 20, 6643-50.
4. Demoulin, J.B. et al. (1999) *J Biol Chem* 274, 25855-61.
5. Dentelli, P. et al. (1999) *J Immunol* 163, 2151-9.
6. Meinke, A. et al. (1996) *Mol Cell Biol* 16, 6937-44.

Species Reactivity

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

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse

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