

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



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**For Research Use Only. Not For Use In Diagnostic Procedures.**

**Entrez-Gene ID** #6776, 6777  
**Swiss-Prot Acc.** #P42229, P51692

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, (R)	Molecular Wt. 90 kDa	Isotype Mouse IgG1**
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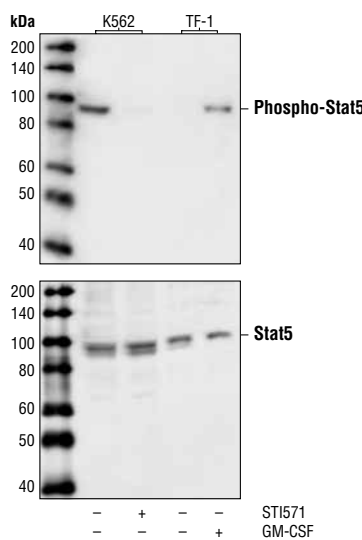
**Background:** Stat5 is activated in response to a wide variety of ligands including IL-2, GM-CSF, growth hormone and prolactin. Phosphorylation at Tyr694 is obligatory for Stat5 activation (1,2). This phosphorylation is mediated by Src upon erythropoietin stimulation (3). Stat5 is constitutively active 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).

**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.

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

**Background References:**

- (1) Gouilleux, F. et al. (1994) *EMBO J.* 13, 4361–4369.
- (2) Wakao, H. et al. (1994) *EMBO J.* 13, 2182–2191.
- (3) Okutani, Y. et al. (2001) *Oncogene* 20, 6643–6650.
- (4) Demoulin, J.B. et al. (1999) *J. Biol. Chem.* 274, 25855–25861.
- (5) Dentelli, P. et al. (1999) *J. Immunol.* 163, 2151–2159.
- (6) Meinke, A. et al. (1996) *Mol. Cell. Biol.* 16, 6937–6944.



Western blot analysis of extracts from K562 and TF-1 cells, untreated, ST1571-treated or GM-CSF-treated as indicated using Phospho-Stat5 (Tyr694) (14H2) Mouse mAb (upper) or Stat5 Antibody (lower).

**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.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-mouse secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:200

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

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**IMPORTANT: For western blots, incubate membrane with diluted 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 IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.