

Phospho-Stat5 (Tyr694) (D47E7) XP[®] Rabbit mAb

- Small 100µl
(10 western blots)
- Petite 40 µl
(4 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IF-IC, F Endogenous	H, M, (R, Mk, B)	90 kDa	Rabbit IgG**

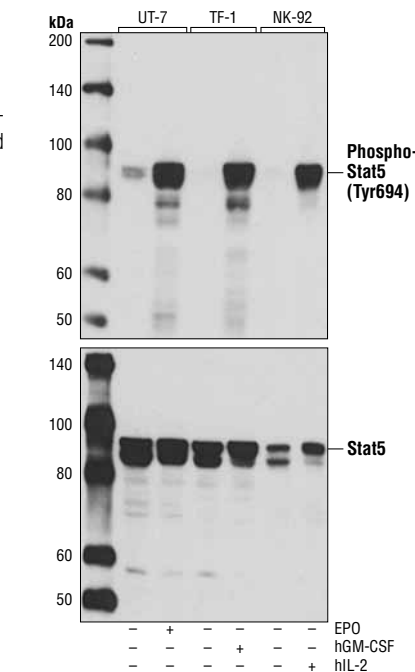
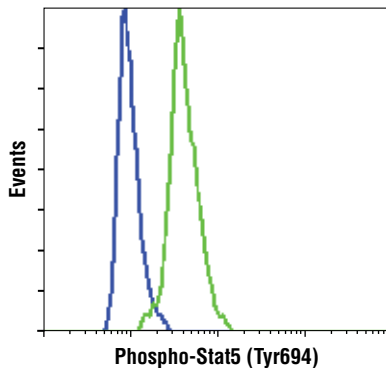
Background: Stat5 is activated in response to a wide variety of ligands including IL-2, GM-CSF, growth hormone and prolactin. Phosphorylation at Tyr694 is obligatory for Stat5 activation (1,2). This phosphorylation is mediated by Src upon erythropoietin stimulation (3). Stat5 is constitutively active 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) (D47E7) XPTM Rabbit mAb detects endogenous levels of Stat5a only when phosphorylated at Tyr694 and Stat5b when phosphorylated at Tyr699.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr694 of human Stat5a protein.

Background References:

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



Western blot analysis of extracts from UT-7 cells, untreated or treated with erythropoietin (EPO; 3 units/ml for 5 min), TF-1 cells, untreated or treated with Human Granulocyte Macrophage Colony Stimulating Factor #8922 (hGM-CSF; 100ng/ml for 10 min), and NK-92 cells, untreated or treated with Human Interleukin-2 #8907 (hIL-2; 100ng/ml for 10 min), using Phospho-Stat5 (Tyr694) (D47E7) XP[®] Rabbit mAb (upper) or total Stat5 (3H7) Rabbit mAb #9358 (lower).

◀ Flow cytometric analysis of TF-1 cells, untreated (blue) or GM-CSF treated (green), using Phospho-Stat5 (Tyr694) (D47E7) XP[®] Rabbit mAb.

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

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.

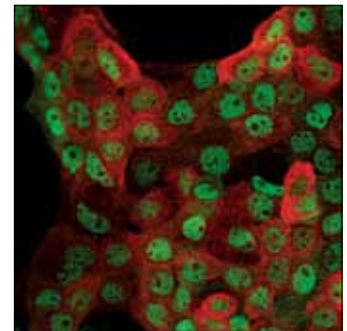
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:100
IF Protocol:	Methanol Permeabilization required
Flow Cytometry	1:200

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



Confocal immunofluorescent analysis of A-431 cells, EGF-treated (upper) or untreated (lower), using Phospho-Stat5 (Tyr694) XP[®](D47E7) Rabbit mAb (green) and Pan-Keratin (C11) Mouse mAb #4545 (red).

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