

**Product Data Sheet: Purified anti-phospho-Stat3 (Tyr705)  
rabbit mAb**

<b>Catalog Number:</b>	1121
<b>Clone:</b>	Stat3Y705-B12
<b>Isotype:</b>	Rabbit IgG1κ
<b>Immunogen:</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr705 of human phospho Stat3
<b>Reactivity:</b>	Mouse, Human
<b>Cross Reactivity:</b>	Predicted to work with mouse, rat and other homologues.
<b>Preparation:</b>	Protein A+G
<b>Formulation:</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Applications:</b>	Flow Cytometry
<b>Recommended Usage:</b>	1.0 - 0.1 µg/ml. Optimum concentration should be determined by the user.
<b>Product Configuration:</b>	200 ul (0.5mg/ml)
<b>Detection:</b>	Anti-Rabbit IgG

**Description**

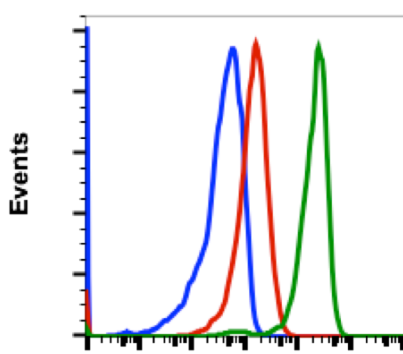
Stat3 is a key signaling molecule for many cytokines and growth-factor receptors and is required for murine fetal development. Stat3 is constitutively activated in several human tumors and may be involved in oncogenic and anti-apoptotic functions. Phospho Stat3 is activated by phosphorylation at Tyr705, which induces dimerization, nuclear translocation and DNA binding. Phospho Stat3 isoform expression appears to reflect biological function: the relative expression levels of Stat3α (86 kDa) and Stat3β (79 kDa) depend on cell type, ligand exposure or maturation stage of the cells. Notably, Stat3β lacks the serine phosphorylation site within the carboxy-terminal transcriptional activation domain.

**References**

1. Heim, M.H. (1999) J. Recept. Signal Transduct. Res. 19:75-120.
2. Takeda, K. et al. (1997) Proc. Natl. Acad. Sci. USA. 94:3801-3804.
3. Catlett-Falcone, R. et al. (1999) Immunity. 10:105-115.
4. Garcia, R. and Jove, R. (1998) J. Biomed. Sci. 5:79-85.
5. Bromberg, J.F. et al. (1999) Cell. 98:295-303.
6. Darnell Jr., J.E. et al. (1994) Science. 264:1415-1421.
7. Ihle, J.N. (1995) Nature. 377:591-594.
8. Wen, Z. et al. (1995) Cell. 82:241-250.

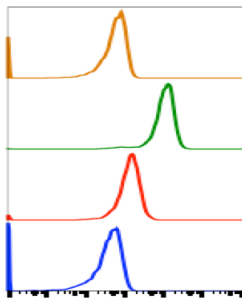
9. Yokogami, K. et al. (2000) *Curr. Biol.* 10:47-50.
10. Biethahn, S. et al. (1999) *Exp. Hematol.* 27:885-894.

### Purified anti-phospho-Stat3 (Tyr705) rabbit mAb Images



Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue) or untreated (red) or treated with IFN $\alpha$ , IL-4 and pervanadate (green) using Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (5 ng/mL). Cat. #1121.

Phospho-Stat3(Y705)

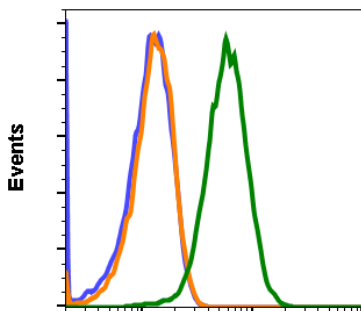


Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue), untreated (red), treated with IFN $\alpha$ , IL-4 and pervanadate (green), treated + blocked with phospho-peptide (brown) using Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (5 ng/mL) Cat. #1121.

Phospho-Stat3(Y705)

SWELLID	Treatment	Median : BL1-A
B12 + PP	IFNa PV	572
B12 0.005 ug/mL	IFNa PV	10438
B12 0.005 ug/mL	Ctrl	1333
2'Ab	Ctrl	373

Stat3Y705-B12 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells, secondary antibody only (blue) or 0.1  $\mu$ g/mL of isotype control Cat. #2141 (orange) or of Phospho-Stat3 (Tyr705) antibody Stat3Y705-B12 (green) Cat. #1121.



Phospho-Stat3 (Y705)