## Phospho-Stat1 (Ser727) (C6) rabbit mAb

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Applications	Detection	Clonality	Isotype
Flow Cytometry,WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

Format: Unconjugated

**Cross Reactivity:** Predicted to work with mouse, rat, and other homologues.

**Formulation:** 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

**Preparation:** Protein A+G

**Reactivity:** Human

Recommended

Usage:

1μg/mL – 0.001μg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional

information.

**Immunogen:** A synthetic phospho-peptide corresponding to residues surrounding Ser727 of

human phospho Stat1

**Description:** Stat1 mediates the cellular response to IFN $\alpha$ , IFN $\beta$ , and IFN $\gamma$  for the regulation of

cell growth and the defense against viral and immune challenges. The Jak-Stat pathway plays a central role in the IFN $\gamma$  response, where Stat1 phosphorylation on Tyr701 causes homodimerization through its SH2 domain, translocation to the nucleus, and binding to gamma-activated sequence (GAS) elements. Early in the

activation sequence, Stat1 is also phosphorylated at Ser727 through a

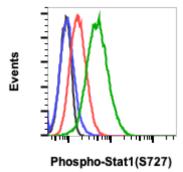
mechanism involving PI3 kinase and Akt. Stat1 has been found to correlate with increased resistance to chemotherapeutic drugs. However, Stat1 activation of the immune system helps suppress tumor growth, and multiple melanomas and squamous-cell carcinomas have been known to downregulate Stat1 expression

to evade immune surveillance.

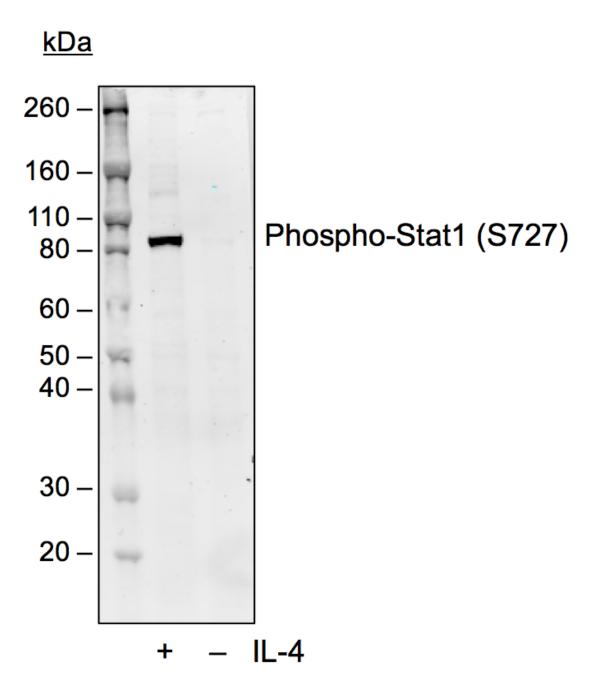
**References:** Ramana CV, Gil MP, Schreiber RD, and Stark GR. (2002) Trends in Immunology.

23: 96-101.

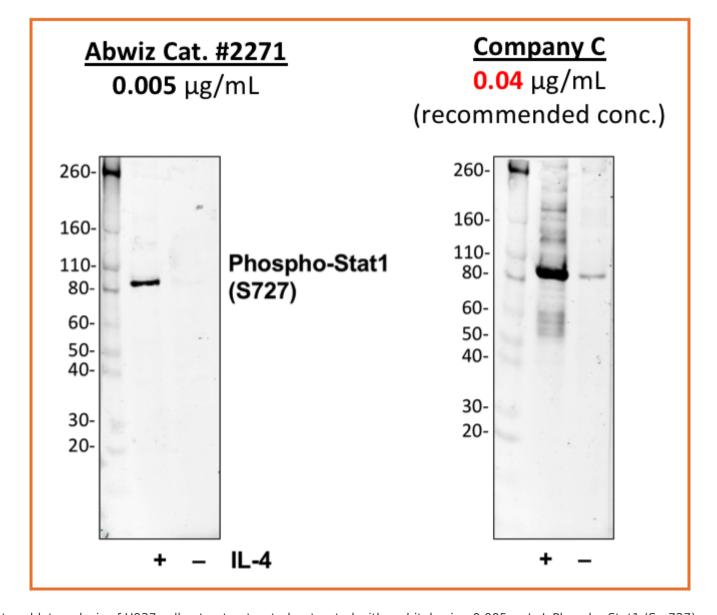
Avalle L, Pensa S, Regis G, Novelli F, and Poli V. (2012) JAK-STAT. 1: 65-72.



Flow cytometric analysis of U937 cells untreated (red) or treated with IFNa+IL4+PV (green) using Phospho-Stat1 (Ser727) (C6) Rabbit mAb Stat1S727-C6 at 0.01 ug/mL #2271, or concentration-matched Rabbit (G9) mAb IgG Isotype Control #2141 for cells untreated (black) or treated with IFNa+IL4+PV (blue).



Western blot analysis of U937 cell extract untreated or treated with IL-4 using 0.1  $\mu$ g/mL Phospho-Stat1 (Ser727) antibody Stat1S727-C6 Cat. #2271.



Western blot analysis of U937 cell extract untreated or treated with sorbitol using 0.005  $\mu$ g/mL Phospho-Stat1 (Ser727) antibody Stat1S727-C6 Cat. #2271 or Company C antibody at 0.04  $\mu$ g/mL (manufacturer's recommended concentration) developed using the same exposure.