

#9174 Store at +4°C

# Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Alexa Fluor® 488 Conjugate)


**Cell Signaling**  
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<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P42224	<b>Entrez-Gene Id:</b> 6772
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity / Sensitivity</b>	Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of Stat1 only when phosphorylated at Tyr701. The antibody detects phosphorylated Tyr701 of p91 Stat1 and also the p84 splice variant. It does not cross-react with the corresponding phospho-tyrosines of other Stat proteins.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr701 of human Stat1. The antibody was conjugated to Alexa Fluor® 488 under optimal conditions with an F/P ratio of 2-6.	
<b>Product Description</b>	Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometric analysis of human cells. The unconjugated antibody, #9167, reacts with human, mouse and rat phospho-Stat1 protein. CST expects that Phospho-Stat1 (Tyr701) (58D6) Rabbit mAb (Alexa Fluor® 488 Conjugate) will also recognize phospho-Stat1 in these species.	
<b>Background</b>	The Stat1 transcription factor is activated in response to a large number of ligands (1) and is essential for responsiveness to IFN-α and IFN-γ (2,3). Phosphorylation of Stat1 at Tyr701 induces Stat1 dimerization, nuclear translocation, and DNA binding (4). Stat1 protein exists as a pair of isoforms, Stat1α (91 kDa) and the splice variant Stat1β (84 kDa). In most cells, both isoforms are activated by IFN-α, but only Stat1α is activated by IFN-γ. The inappropriate activation of Stat1 occurs in many tumors (5). In addition to tyrosine phosphorylation, Stat1 is also phosphorylated at Ser727 through a p38 mitogen-activated protein kinase (MAPK)-dependent pathway in response to IFN-α and other cellular stresses (6). Serine phosphorylation may be required for the maximal induction of Stat1-mediated gene activation.	
<b>Background References</b>	1. Heim, M.H. (1999) <i>J Recept Signal Transduct Res</i> 19, 75-120. 2. Durbin, J.E. et al. (1996) <i>Cell</i> 84, 443-50. 3. Meraz, M.A. et al. (1996) <i>Cell</i> 84, 431-42. 4. Ihle, J.N. et al. (1994) <i>Trends Biochem Sci</i> 19, 222-7. 5. Frank, D.A. (1999) <i>Mol Med</i> 5, 432-56. 6. Wen, Z. et al. (1995) <i>Cell</i> 82, 241-50.	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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