

## PerCP/Cyanine5.5 anti-STAT3 Phospho (Ser727) Antibody

<b>Catalog# / Size</b>	698909 / 25 tests 698910 / 100 tests
<b>Clone</b>	A16089B
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Signal transducer and activator of transcription 3, Acute-phase response factor (APRF), HIES, ADMIO
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	<p>The STAT3 transcription factor is an important signaling molecule for many cytokines and growth factor receptors and is required for murine fetal development. STAT3 is an 88 kD member of the STAT (signal transducer and activators of transcription) protein family that is phosphorylated in response to a cytokine receptor-associated kinase activity. Stat3 is activated by phosphorylation at Tyr705, which induces dimerization, nuclear translocation, and DNA binding. Transcriptional activation was reported to be regulated by phosphorylation at Ser727 through the MAPK or mTOR pathways.</p> <p>STAT3 forms both homo- and heterotrimers and is involved in the activation of genes required for cell growth and apoptosis. STAT3 is also involved in gp130 signaling and binds to IL-6 response elements in various acute phase protein promoters. STAT3 is phosphorylated by signaling from IFNs, EGF, FGF, IL-5, HGF, LIF, and BMP2. STAT3 activity is inhibited by PIAS3 and GRIM-19 and can also be regulated by the Rac1 protein.</p>

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human Stat3 peptide phosphorylated at Ser 727. Complete Freund's adjuvant.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine5.5 under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by intracellular flow cytometry using our <a href="#">True-Phos™ Perm Buffer in Cell Suspensions Protocol</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	The STAT3 Phospho (Ser727) antibody recognizes the regulatory serine phosphorylation of human STAT3 protein.
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact <a href="#">Technical Service</a> if you have any questions.
<b>RRID</b>	AB_2734541 (BioLegend Cat. No. 698909) AB_2734542 (BioLegend Cat. No. 698910)

## Antigen Details

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<b>Structure</b>	STAT3 is a 770 amino acid protein of 88 kD. It consists of a DNA binding domain, a SH2 domain, a regulatory tyrosine responsible for binding of SH2 domain, and a C-terminal transactivation domain.
<b>Distribution</b>	Ubiquitous
<b>Function</b>	STAT3 is also involved in gp130 signaling and binds to IL-6 response elements in various acute phase protein promoters. STAT3 is phosphorylated by signaling from IFNs, EGF, FGF, IL-5, HGF, LIF, and BMP2. STAT3 activity is inhibited by PIAS3 and GRIM-19 and can also be regulated by the Rac1 protein.
<b>Interaction</b>	When activated, STAT3 dimerizes and translocates to the nucleus where it regulates gene expression.
<b>Biology Area</b>	Cell Biology, Neuroscience, Neuroscience Cell Markers, Signal Transduction, Transcription Factors
<b>Molecular Family</b>	Nuclear Markers, Phospho-Proteins
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Akira S, <i>et al.</i> 1994. <i>Cell</i>. 77:63.</li><li>2. Zhang X, <i>et al.</i> 1995. <i>Science</i> 267:1990.</li><li>3. Sanchez-Margalet V, <i>et al.</i> 2001. <i>Cell. Immunol.</i> 211:30.</li><li>4. Simon A, <i>et al.</i> 2000. <i>Science</i> 290:144.</li><li>5. Hoey T, <i>et al.</i> 1999. <i>Adv. Immunol.</i> 71:145.</li></ol>
<b>Gene ID</b>	<a href="#">6774</a>

## Related Protocols

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[Intracellular Staining With True-Phos™ Perm Buffer in Cell Suspensions Protocol](#)

[Intracellular Staining With True-Phos™ Perm Buffer in Whole Blood](#)

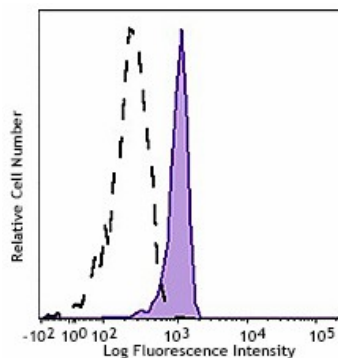
## Other Formats

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Go-ChIP-Grade™ Purified anti-STAT3 Phospho (Ser727), PE anti-STAT3 Phospho (Ser727), Purified anti-STAT3 Phospho (Ser727), PerCP/Cyanine5.5 anti-STAT3 Phospho (Ser727), PE/Cyanine7 anti-STAT3 Phospho (Ser727), Alexa Fluor® 488 anti-STAT3 Phospho (Ser727), Brilliant Violet 421™ anti-STAT3 Phospho (Ser727), Alexa Fluor® 647 anti-STAT3 Phospho (Ser727)

## Product Data

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Human peripheral blood monocytes were treated with (filled histogram), or without (open histogram), Cell Activation Cocktail (Cat. No. 423301) for 15 minutes, fixed with Fixation Buffer (Cat. No. 420801), permeabilized with True-Phos™ Perm Buffer (Cat. No. 425401), then intracellularly stained with Human TruStain FcX™ (Cat. No. 422302) and anti-STAT3 Phospho (Ser727, clone A16089B) PerCP/Cyanine5.5.

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