

## PE anti-human STAT3 Antibody

<b>Catalog# / Size</b>	371803 / 25 tests 371804 / 100 tests
<b>Clone</b>	15H2B45
<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>	STAT3 is an 88 kD member of the STAT (signal transducer and activators of transcription) protein family that is phosphorylated in response to cytokine receptor-associated kinase activity. Phosphorylation of STAT3 induces nuclear translocation to activate transcription. 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 Rac1 protein.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Partial human STAT3 recombinant protein (621-770 a.a.) expressed in <i>E. coli</i> .
<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 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) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Clone 15H2B45 blocks clone 4G4B45.
<b>RRID</b>	AB_2629733 (BioLegend Cat. No. 371803) AB_2629734 (BioLegend Cat. No. 371804)

### Antigen Details

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<b>Structure</b>	770 amino acids with a predicted molecular weight of 88.1 kD. Contains a C-terminal SH2 domain responsible for homo- or heterodimerization.
<b>Distribution</b>	Phosphorylated in response to cytokine signaling by receptor-associated kinases; translocates to nucleus to act as transcriptional activator. Activates a wide variety of genes involved in cell growth

and apoptosis, involved in gp130-related signaling.

<b>Function</b>	Cytoplasm.
<b>Interaction</b>	STAT3 forms a homodimer or a heterodimer with other STAT family members. Interacts with IL31RA, NCOA1, PELP1, SIPAR, SOCS7, STATIP1, CAV2, DAPK3, EIF2AK2, PIAS3, and TMF1.
<b>Cell Type</b>	Embryonic Stem Cells, Mesenchymal Stem Cells
<b>Biology Area</b>	Cell Biology, Neuroscience, Neuroscience Cell Markers, Stem Cells, Transcription Factors
<b>Molecular Family</b>	Nuclear Markers
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Lufei C, <i>et al.</i> 2003. <i>EMBO J.</i> 22:1325.</li><li>2. Deo D, <i>et al.</i> 2002. <i>J. Biol. Chem.</i> 277:21237.</li><li>3. Pfeffer L, <i>et al.</i> 1997. <i>Science.</i> 276:1418.</li><li>4. Akira S, <i>et al.</i> 1994. <i>Cell.</i> 77:63.</li></ol>
<b>Gene ID</b>	<a href="#">6774</a>

## Related Protocols

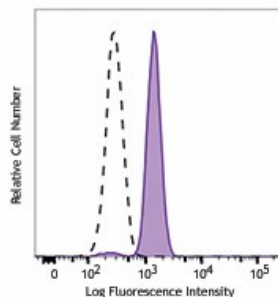
[Intracellular Staining With True-Phos™ Perm Buffer in Cell Suspensions Protocol](#)

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

## Other Formats

Purified anti-human STAT3, PE anti-human STAT3

## Product Data



HeLa cells (filled histogram) or PC-3 cells (open histogram) were fixed with Fixation Buffer, permeabilized with True-Phos™ Perm Buffer, and intracellularly stained with STAT3 (clone 15H2B45) PE.

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