

Go-ChIP-Grade™ Purified anti-STAT5 Phospho (Tyr694) Antibody

Catalog# / Size	699603 / 25 µg 699604 / 100 µg
Clone	A17016B
Regulatory Status	RUO
Other Names	Signal transducer and activator of transcription 5A
Isotype	Mouse IgG1, κ
Description	STAT5 is a member of the signal transducer and activator of transcription factors (STAT) family, mediating growth and cytokine signaling. STAT5 consists of two closely related family members, STAT5A and STAT5B, which exhibit 96% sequence homology and are functionally redundant. Upon activation, STAT5 is phosphorylated by receptor tyrosine kinases and, in turn, forms homodimers or heterodimers with other family members through its SH2 domains. The dimerized STAT5 translocates to the nucleus and binds to the STAT5 response element (TTCXXGAA). STAT5 plays crucial regulatory roles in cell proliferation, anti-apoptosis, early B cell differentiation, and T cell development.

Product Details

Verified Reactivity	Human, Mouse†
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Phosphorylated human STAT5A at Tyr694
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	ChIP - Quality tested ICFC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by ChIP Assay. The suggested dilution for ChIP application is 1:50 - 1:200 by volume. For flow cytometric staining, the suggested use of this reagent is ≤0.125 µg per million cells in 100 µl volume. It is recommended that the reagent to be titrated for optimal performance before each experiment.
Application Notes	Does not cross-react with mouse for ICFC. †Based on in-house testing, clone A17016B cross-reacts to Mouse STAT5 Phospho (Tyr694) in Western blots, but it is not recommended for intracellular flow cytometry application due to dim staining
RRID	AB_2734545 (BioLegend Cat. No. 699603) AB_2734546 (BioLegend Cat. No. 699604)

Antigen Details

Structure	794 amino acids, predicted molecular weight of 91 kD; contains a SH2 domains responsible for homodimerization or heterodimerization.
Distribution	Cytoplasm; phosphorylated form translocates to the nucleus.
Function	STAT5 is a transcription regulator and is involved in cell differentiation, proliferation, and survival,

in response to several cytokines, such as interleukins, erythropoietin, growth hormone, thrombopoietin, and prolactin.

Interaction	Forms a homodimer or a heterodimer with other family members. Interacts with NCOA1, SOCS7, CBP, p300, SMRT and ERBB4.
Cell Type	B cells, Th17, Tregs
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Biology, Immunology, Signal Transduction, Transcription Factors
Molecular Family	Nuclear Markers, Phospho-Proteins
Antigen References	<ol style="list-style-type: none">1. Bell BD, <i>et al.</i> 2013. <i>Nat. Immunol.</i> 14:364.2. Cholez E, <i>et al.</i> 2012. <i>Leukemia.</i> 26:2390.3. Heltemes-Harris LM, <i>et al.</i> 2012. <i>Curr. Opin. Immunol.</i> 24:146.4. Heltemes-Harris LM, <i>et al.</i> 2011. <i>Ann. N Y Acad. Sci.</i> 1217:18.5. Malin S, <i>et al.</i> 2010. <i>Curr. Opin. Immunol.</i> 22:168.6. Xu J, <i>et al.</i> 2009. <i>J. Neurosci.</i> 29:2022.
Gene ID	6776

Related Protocols

[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Chromatin Immunoprecipitation \(ChIP\) Assay Protocol](#)

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

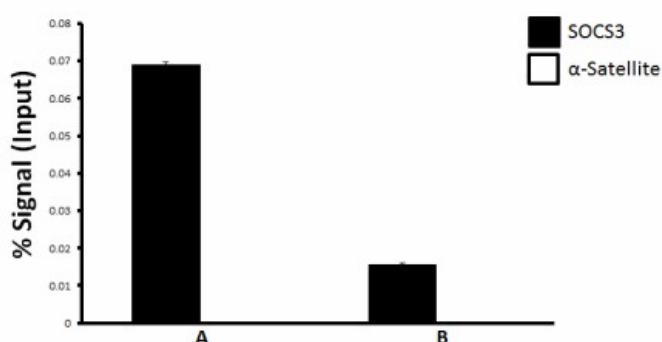
[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

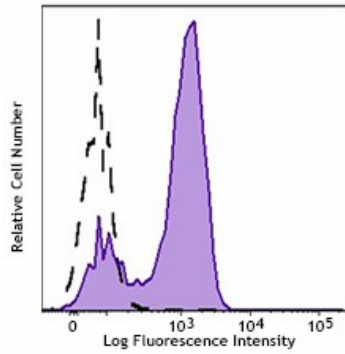
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Product Data

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Chromatin Immunoprecipitations (ChIP) were performed with cross-linked chromatin samples from 4×10^6 of Ba/F3 cells deprived for IL-3 overnight and then treated with IL-3 with either A) 1:50 dilution of Go-ChIP-Grade™ Purified anti-STAT5 Phospho (Tyr694) (Clone A17016B) or B) equal amount of Purified Mouse IgG1, κ Isotype Control Antibody (Clone MG1-45, Cat. No. 401401) by using Go-ChIP-Grade™ Protein G Enzymatic Kit (Cat. No. 699904). The enriched DNA was purified and quantified by real-time qPCR using primers targeting mouse SOCS3 gene region and α -Satellite repeats. The amount of immunoprecipitated DNA in each sample is represented as signal relative to total amount of input chromatin.



Human peripheral blood mononuclear cells were treated with (filled histogram), or without (open histogram) Recombinant Human IL-2 (carrier free, Cat. No. 589102) for 15 minutes, fixed with Fixation Buffer (Cat. No. 420801), permeabilized with True-Phos™ Perm Buffer (Cat. No. 425401) then stained with Go-ChIP-Grade™ Purified anti-STAT5 Phospho (Tyr694) (clone A17016B), and followed by mouse IgG PE. Data was gated on the lymphocyte population.

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