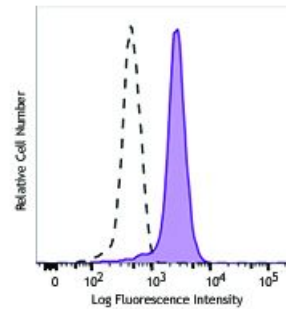


**Purified anti-STAT3**

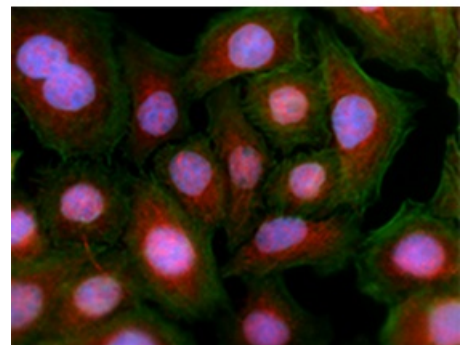
- Catalog # / Size:** 3990005 / 25 µg
- Clone:** 4G4B45
- Isotype:** Mouse IgG1, κ
- Immunogen:** Partial human STAT3 recombinant protein (621-770 a.a.) expressed in *E. coli*.
- Reactivity:** Human, Mouse
- Preparation:** The antibody was purified by affinity chromatography.
- Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
- Concentration:** 0.5 mg/ml



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 purified STAT-3 (clone 4G4B45), followed by anti-mouse IgG PE.

**Applications:**

- Applications:** Immunofluorescence, Other, Intracellular Staining for Flow Cytometry
- Recommended Usage:** Each lot of this antibody is quality control tested by Western blotting. For Western blotting, the suggested use of this reagent is 0.25 - 1.0 µg per ml. For intracellular flow cytometric staining, the suggested use of this reagent is ≤ 0.06 µg per million cells in 100 µl volume. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/ml is recommended. For immunoprecipitation, the suggested use of this reagent is 2.0 - 10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
- Application Notes:** This clone is not recommended for ChIP (Chromatin Immunoprecipitation) assays (as determined by in-house testing).



HeLa cells were fixed with 2% paraformaldehyde (PFA) for 10 minutes, permeabilized with 0.5% Triton X-100 for five minutes, and blocked with 5% FBS for 30 minutes. Then the cells were intracellularly stained with 2 µg/mL anti-STAT3 (clone 4G4B45) in blocking buffer overnight at 4°C and followed by DyLight™ 594 (red) conjugated goat anti-mouse IgG for one hour at room temperature. Actin filaments were labeled with Alexa Fluor® 488 Phalloidin (green). Nuclei were counterstained with DAPI (blue). The image was captured with a 60X objective.

**Description:** 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. 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 the Rac1 protein.

**Antigen**  
**References:**

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2. Deo D, *et al.* 2002. *J. Biol. Chem.* 277:21237.
3. Pfeffer L, *et al.* 1997. *Science* 276:1418.
4. Akira S, *et al.* 1994. *Cell* 77:63.