SONY

Product Data Sheet

PerCP/Cyanine5.5 anti-GATA3

Catalog # / Size: 3869055 / 25 tests
3869060 / 100 tests

Clone: 16E10A23

Isotype: Mouse IgG2b, κ

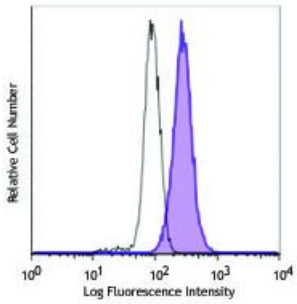
Immunogen: Partial human GATA3 recombinant protein (1-258 aa).

Reactivity: Human, Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: Lot-specific



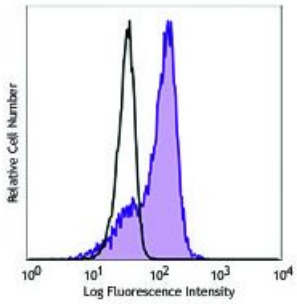
Human T leukemia cell line Jurkat (filled histogram) or Burkitt's lymphoma cell line Ramos (open histogram) were treated with FOXP3 Fix/Perm Buffer Set, and then stained with anti-human GATA3 (clone 16E10A23) PerCP/Cy5.5.

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining using our nuclear factor staining protocol. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PerCP/Cy5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.



Murine Th2 cell line D10.G4.1 (filled histogram) or B lymphoma cell line A20 (open histogram) was treated with FOXP3 Fix/Perm Buffer Set and then stained with GATA3 (clone 16E10A23) APC.

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Description: GATA3 functions as a major regulator of T helper 2 (Th2) cell differentiation in immune cells. GATA3 expression is upregulated through IL-4 receptor signaling or the Notch-mediated pathway, which results in production of IL-4, IL-5, and IL-13 cytokines, responsible for preferential differentiation of Th2-cells. GATA3 has been shown to regulate early developmental processes of T cells, such as T cell commitment, positive selection, and post-commitment $CD4^+$ T cell survival. In the mammary gland, GATA3 plays an important role in differentiation and commitment of luminal epithelial cells. In a mouse model, exogenous expression of GATA3 in undifferentiated breast carcinoma cells induces differentiation and suppresses spreading of the tumor cells, suggesting that GATA3 is involved in preventing malignancy of breast cancer. GATA3 has been reported to be essential in the development of a variety of normal tissues. Defect in GATA3 results in hypoparathyroidism, sensorineural deafness, and renal dysplasia (HDR syndrome).

Antigen References:

1. Yagi R, *et al.* 2011. *Int. Immunol.* 23:415.
2. Chou J, *et al.* 2010. *J. Cell Physiol.* 222:42.
3. Ho IC, *et al.* 2009. *Nat. Rev. Immunol.* 9:125.
4. Rothenberg EV, *et al.* 2008. *Semin. Immunol.* 20:236.
5. Kouros-Mehr H, *et al.* 2008. *Curr. Opin. Cell Biol.* 20:164.
6. Van Esch H, *et al.* 2000. *Nature* 406:419.

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