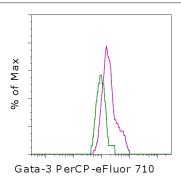


Anti-Human/Mouse Gata-3 PerCP-eFluor® 710

Catalog Number: 46-9966

RUO: For Research Use Only. Not for use in diagnostic procedures.



Intracellular staining of C57Bl/6 thymoocytes with Anti-Mouse CD4 FITC (cat. 11-0042), Anti-Mouse CD8a APC (cat. 17-0081) and Anti-Human/Mouse Gata-3 PerCP-eFluor® 710 using the Foxp3 Staining Buffer Set (cat 00-5521). CD4-single positive (purple histogram) and CD8-single positive (green histogram) cells were used for analysis.

Product Information

Contents: Anti-Human/Mouse Gata-3

PerCP-eFluor® 710
REF Catalog Number: 46-9966

Clone: TWAJ

Concentration: 5 uL (0.06 ug)/test **Host/Isotype:** Rat IgG2b, kappa



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer **Temperature Limitation:** Store at 2-8°C. Do not

freeze. Light-sensitive material. **Batch Code:** Refer to vial



Use By: Refer to vial

Description

The monoclonal antibody TWAJ recognizes mouse and human Gata-3, a member of the Gata family of transcription factors. Gata-3 is a T cell-specific transcription factor important for thymic development and Th2 differentiation. Expression during embryonic development is found in the central nervous system, skin, mammary glands and kidney. During development, the expression of Gata-3 is essential as homozygous knock-out of Gata-3 is embryonic lethal. The Gata-3 is also essential for T cell commitment and survival. In the thymus, expression is found mainly on the CD4 single positive cells. During Th2 differentiation, Gata-3 binds to the IL-4 promoter as well as represses the expression of T-bet, thus inhibiting Th1 differentiation.

Alternative splice variants have been reported especially in the MCF7 cell line. The TWAJ anti-mouse/human Gata-3 antibody will recognize both forms (50 and 45 kDa) of the protein.

Staining with the TWAJ anti-mouse/human Gata-3 antibody requires the use of the Foxp3 Staining Buffer Set.

Applications Reported

This TWAJ antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This TWAJ antibody has been tested by intracellular staining with the Foxp3 Buffer Set (cat. 00-5521) and protocol and flow cytometric analysis of mouse thymocytes. Please see Best Protocols Section (Staining Intracellular Antigens for Flow Cytometry) for staining protocol (refer to Protocol B: One-step protocol for intracellular (nuclear) proteins). This can be used at 5 uL (0.06 ug) per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.



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Our testing indicates that PerCP-eFluor® 710 conjugated antibodies are stable when stained samples are exposed to freshly prepared 2% formaldehyde overnight at 4°C, but please evaluate for alternative fixation protocols.

Click here or contact eBioscience Technical Support for more information on eFluor™ Organic Dyes including PerCP-eFluor® 710.

References

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Mantel PY, Kuipers H, Boyman O, Rhyner C, Ouaked N, Rückert B, Karagiannidis C, Lambrecht BN, Hendriks RW, Crameri R, Akdis CA, Blaser K, Schmidt-Weber CB. GATA3-driven Th2 responses inhibit TGF-beta1-induced FOXP3 expression and the formation of regulatory T cells. PLoS Biol. 2007 Dec;5(12):e329.

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Pai SY, Truitt ML, Ting CN, Leiden JM, Glimcher LH, Ho IC. Critical roles for transcription factor GATA-3 in thymocyte development. Immunity. 2003 Dec;19(6):863-75.

Hendriks RW, Nawijn MC, Engel JD, van Doorninck H, Grosveld F, Karis A. Expression of the transcription factor GATA-3 is required for the development of the earliest T cell progenitors and correlates with stages of cellular proliferation in the thymus. Eur J Immunol. 1999 Jun;29(6):1912-8.

Related Products

00-5521 Foxp3 Fixation/Permeabilization Concentrate and Diluent

00-5523 Foxp3 / Transcription Factor Staining Buffer Set

11-0041 Anti-Mouse CD4 FITC (GK1.5)

12-0081 Anti-Mouse CD8a PE (53-6.7)

46-4031 Rat IgG2b K Isotype Control PerCP-eFluor® 710