

Gata-3 Monoclonal Antibody (TWAJ), PerCP-eFluor 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human, Mouse, Pig, Rhesus monkey
Published Species	Artificial Control, Mouse, Human
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	TWAJ
Conjugate	PerCP-eFluor™ 710
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10804487

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	17 Publications

Product Specific Information

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 Human/Mouse Gata-3 antibody will recognize both forms (50 and 45 kDa) of the protein.

Staining with the TWAJ Human/Mouse Gata-3 antibody requires the use of the Foxp3/Transcription Factor Staining Buffer Set.(cat 00-5523)

Crossreactivity in rhesus monkeys has been published.

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 pre-titrated and tested by intracellular staining and flow cytometric analysis of mouse thymocytes using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol. Please refer to Best Protocols: Protocol B: One step protocol for (nuclear) intracellular proteins located under the Resources Tab online. This can be used at 5 μ L (0.06 μ g) 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 10^5 to 10^8 cells/test.

PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

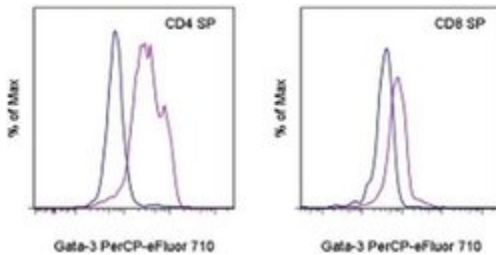
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; **Emission:** 710 nm; **Laser:** Blue Laser.

Filtration: 0.2 μ m post-manufacturing filtered.

Product Images For Gata-3 Monoclonal Antibody (TWAJ), PerCP-eFluor 710, eBioscience™



Gata-3 Antibody (46-9966-42) in Flow

BALB/c thymocytes were surface stained with Anti-Mouse CD4 APC (Product # 17-0041-82) and Anti-Mouse CD8a PE (Product # 12-0081-82) followed by intracellular staining with Rat IgG2b K Isotype Control PerCP-eFluor® 710 (Product # 46-4031-82) (blue histogram) or Anti-Human/Mouse Gata-3 PerCP-eFluor® 710 (purple histogram) using the Foxp3/Transcription Factor Staining Buffer Set (Product # 00-5523-00) and protocol. Cells in the CD4 single positive (left) or CD8 single positive (right) gates were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Flow Cytometry (17)

Nature communications

Attenuation of TCR-induced transcription by Bach2 controls regulatory T cell differentiation and homeostasis.

"Published figure using Gata-3 monoclonal antibody (Product # 46-9966-42) in Flow Cytometry"

Authors: Sidwell T, Liao Y, Garnham AL, Vasanthakumar A, Gloury R, Blume J, Teh PP, Chisanga D, Thelemann C, de Labastida Rivera F, Engwerda CR, Corcoran L, Kometani K, Kurosaki T, Smyth GK, Shi W, Kallies A

Species
Artificial Control

Dilution
Not Cited

Year
2020

PloS one

Clonal analysis of the T-cell response to in vivo expressed Mycobacterium tuberculosis protein Rv2034, using a CD154 expression based T-cell cloning method.

"46-9966 was used in Flow cytometry/Cell sorting to identify T-cell subsets that likely play a significant role in controlling Mtb infection."

Authors: Commandeur S, Coppola M, Dijkman K, Friggen AH, van Meijgaarden KE, van den Eeden SJ, Wilson L, van der Ploeg-van Schip JJ, Franken KL, Geluk A, Ottenhoff TH

Species
Human

Dilution
Not Cited

Year
2016

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More applications with references on thermofisher.com

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