

# Gata-3 Monoclonal Antibody (TWAJ), eFluor™ 660, eBioscience™

| Product Details             |   |
|-----------------------------|---|
| Size                        | 100 Tests   |
| Species Reactivity          | Human, Mouse, Pig, Rhesus monkey  |
| Published Species           | Mouse, Human  |
| Host/Isotype                | Rat / IgG2b, kappa  |
| Recommended Isotype Control | Rat IgG2b kappa Isotype Control (eB149/10H5), eFluor™ 660, eBioscience™ |
| Class                       | Monoclonal  |
| Type                        | Antibody  |
| Clone                       | TWAJ  |
| Conjugate                   | eFluor™ 660   |
| Excitation/Emission Max     | 651/668 nm  |
| Form                        | Liquid  |
| Concentration               | 5 µL/Test   |
| Purification                | Affinity chromatography   |
| Storage buffer              | PBS, pH 7.2, with 0.2% BSA  |
| Contains                    | 0.09% sodium azide  |
| Storage conditions          | 4° C, store in dark, DO NOT FREEZE!                                     |
| RRID                        | AB_10596663   |

| Applications               | Tested Dilution      | Publications    |
|----------------------------|----------------------|-----------------|
| Western Blot (WB)          | -                    | 1 Publication   |
| Immunohistochemistry (IHC) | -                    | 2 Publications  |
| Flow Cytometry (Flow)      | 5 µL (0.125 µg)/test | 45 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.

**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 see Best

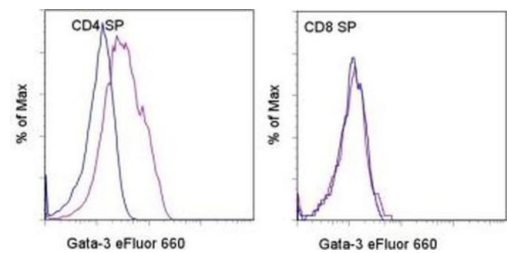
Protocols Section (Staining intracellular Antigens for Flow Cytometry) for staining protocol (refer to Protocol B: One-step protocol for intracellular (nuclear) proteins). This can be used at 5  $\mu$ L (0.125  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorocho

Excitation: 633-647 nm; Emission: 668 nm; Laser: Red Laser.

Filtration: 0.2  $\mu$ m post-manufacturing filtered.

**Product Images For Gata-3 Monoclonal Antibody (TWAJ), eFluor™ 660, eBioscience™**



**Gata-3 Antibody (50-9966-42) in Flow**  
Intracellular staining of BALB/c thymocytes with Anti-Mouse CD4 PE (Product # 12-0041-82), Anti-Mouse CD8a FITC (Product # 11-0081-82), and Rat IgG2b K Isotype Control eFluor® 660 (Product # 50-4031-82) (blue histogram) or Anti-Human/Mouse Gata-3 eFluor® 660 (purple histogram) using the Foxp3 Staining Buffers (Product # 00-5523-00). CD4 single-positive (left) or CD8 single-positive (right) cells were used for analysis.

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## Western Blot (1)

World journal of gastroenterology

### Mesenchymal stem cells alleviate TNBS-induced colitis by modulating inflammatory and autoimmune responses.

"Published figure using Gata-3 monoclonal antibody (Product # 50-9966-42) in Western Blot"

Authors: Chen QQ,Yan L,Wang CZ,Wang WH,Shi H,Su BB,Zeng QH,Du HT,Wan J

Year  
2013

## Immunohistochemistry (2)

Nature communications

### A coordinated progression of progenitor cell states initiates urinary tract development.

"Published figure using Gata-3 monoclonal antibody (Product # 50-9966-42) in Immunohistochemistry"

Authors: Sanchez-Ferras O,Pacis A,Sotiropoulou M,Zhang Y,Wang YC,Bourgey M,Bourque G,Ragoussis J,Bouchard M

Year  
2021

Nature cell biology

### GATA3 suppresses metastasis and modulates the tumour microenvironment by regulating microRNA-29b expression.

"Published figure using Gata-3 monoclonal antibody (Product # 50-9966-42) in Immunohistochemistry"

Authors: Chou J,Lin JH,Brenot A,Kim JW,Provot S,Werb Z

Year  
2013

Species  
Human  
Mouse

## Flow Cytometry (45)

JCI insight

### Impaired Treg-DC interactions contribute to autoimmunity in leukocyte adhesion deficiency type 1.

"50-9966-42 was used in Flow cytometry/Cell sorting to demonstrate a crucial role of LFA-1 on Treg to maintain immune homeostasis by modifying T cell-DC interactions and CD4+ T cell activation."

Authors: Klaus T,Wilson AS,Vicari E,Hadaschik E,Klein M,Helbich SSC,Kamenjarin N,Hodapp K,Schunke J,Haist M,Butsch F,Probst HC,Enk AH,Mahnke K,Waisman A,Bednarczyk M,Bros M,Bopp T,Grabbe S

Year  
2022

Species  
Mouse

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## More applications with references on thermofisher.com

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