

TECHNICAL DATA SHEET

FITC Anti-Mouse Foxp3 (3G3)

Catalog Number: 35-5773

PRODUCT INFORMATION

Contents: FITC Anti-Mouse Foxp3 (3G3)

Isotype: Mouse IgG1, kappa

Concentration: 0.5 mg/mL

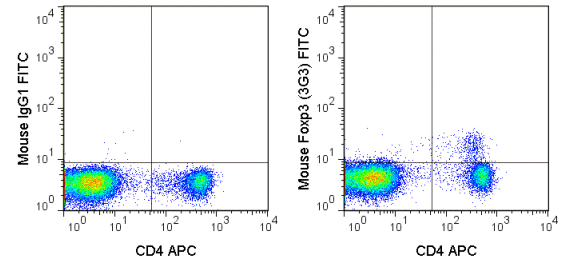
Clone: 3G3

Reactivity: Mouse

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C protected from light

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃,
0.1% gelatin, pH7.2



C57Bl/6 splenocytes were stained with APC Anti-Mouse CD4 (20-0041), followed by intracellular staining with 0.015 ug FITC Anti-Mouse Foxp3 (35-5773) (right panel) or 0.015 ug FITC Mouse IgG1 isotype control (left panel).

DESCRIPTION

The 3G3 antibody reacts with mouse Foxp3, a 50-55 kDa transcription factor which is a central regulator of T cell activity and is critical for the development and function of regulatory T cells (Tregs). Foxp3 is expressed at constitutively high levels in Treg cells, which are further identified as being CD4⁺ CD25⁺. In resting conventional T cells (CD4⁺ CD25⁻) Foxp3 expression is restricted, and upon TCR activation is expressed only transiently and in a small proportion of cells. However, the growth factor TGF-beta has been shown to induce expression of Foxp3 in native T cells, driving their development into Foxp3⁺ Tregs, which are called induced or adaptive Tregs. These cells are phenotypically similar to so-called natural Tregs (CD4⁺ CD25^{high} Foxp3⁺) which originate in the thymus and comprise the majority of Treg cells. Tregs are critical for maintaining peripheral tolerance and are implicated in the development of autoimmunity. It is important to review the literature in choosing an antibody for the Foxp3 antigen in flow cytometry, as the potential for high background or non-specific staining may be observed. The 3G3 antibody may be used for intracellular detection of Foxp3 in cells from mouse and Rhesus macaque.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

REFERENCES

Ramos RN, Oliveira CE, Gasparoto TH, et al. 2012. Carcinogenesis. 33: 902-909. (Flow cytometry) Klein M, Vaeth M, Scheel T, Grabbe S, Baumgrass R, Berberich-Siebelt F, Bopp T, Schmitt E, and Becker C. 2012. J. Immunol. 188: 1091-1097. (Flow cytometry) Ansari AA, Reimann KA, Mayne AE, Takahashi Y, Stephenson ST, Wang R, Wang X, Li J, Price AA, Little DM, Zaidi M, Lyles R, and Villingier F. 2011. J. Immunol. 186: 1044-1059. (Flow cytometry – Rhesus macaque) Nagar M, Vernitsky H, Cohen Y, Dominissini D, Berkun Y, Rechavi G, Amariglio N, and Goldstein I. 2008. Int. Immunol. 20: 1041-1055. (Flow cytometry) Hombach AA, Kofler D, Hombach A, Rapp G, and Abken H. 2007. J. Immunol. 179: 7924-7931. (Flow cytometry). Gavin MA, Torgerson TR, Houston E, deRoos P, Ho WY, Stray-Pedersen A, Ocheltree EL, Greenberg PD, Ochs HD, and Rudensky AY. 2006. Proc Natl Acad Sci USA. 103(17): 6659-6664. (Flow cytometry)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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