

Mouse FOXP3 Antibody

FITC

Monoclonal Antibody

Product Information

Product No.: F406
Clone: MF-14
Isotype: Mouse IgG1 κ
Storage: Sterile 2-8°C

Product Description

Specificity:

MF-14 activity is directed against mouse FOXP3.

Antigen Distribution:

FOXP3 is a unique marker of CD4⁺CD25⁺ regulatory T cells, distinguishing them from activated CD4⁺CD25⁻ T cells.

Background:

FOXP3 is a transcription factor¹ required for development of CD4⁺CD25⁺ regulatory T cells (Treg) that does not affect CD4⁺CD25⁻ T cell proliferation². Treg cells expressing FOXP3 play a critical role in the maintenance of immune homeostasis and prevention of autoimmunity¹. FOXP3 promotes the generation of Tregs, represses cytokine expression in primary CD4⁺ T cells, and suppresses the transcriptional activities of NFAT and NF- κ B³. FOXP3 also inhibits basal activation of PKC- θ , I κ B kinase β (IKK β), and TNF- α stimulation of NF- κ B. Depletion of FOXP3⁺CD4⁺ Treg cells and/or loss of function mutations of FOXP3 results in severe autoimmunity, allergy, immunopathology as well as cancer immunity¹.

FOXP3 is predominantly expressed in CD25⁺CD4⁺ Tregs in the thymus and periphery^{2,4}, and abundance increases upon *in vitro* activation of CD4⁺CD25⁺ Tregs². Additionally, expression of FOXP3 in naïve T cells can convert these cells to a Treg phenotype⁴. FOXP3 is virtually undetectable in resting and activated CD4⁺CD25⁻ T cells².

FOXP3 represents a more specific marker for CD4⁺ Tregs than *e.g.*, CD25, CD45RB, CTLA-4, and GITR which do not discriminate between Tregs and activated, effector, or memory T cells⁴.

Known Reactivity Species:

Mouse

Format:

Fluorescein (FITC)

Formulation

This Fluorescein (FITC) conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

Storage and Stability

This Fluorescein conjugate is stable when stored at 2-8°C. **Do not freeze.**

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC

Other Applications Reported in Literature:

IF,
ICFC

Country of Origin

USA