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FoxP3 (3G3) Mouse mAb (APC Conjugate)

#41442



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Entrez-Gene ID #50943
UniProt ID #Q9BZS1

New 10/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity	Isotype
F Endogenous	M	Mouse IgG1

Description: This Cell Signaling Technology antibody is conjugated to APC and tested in-house for direct flow cytometric analysis in mouse cells.

Background: Forkhead box (Fox) proteins are a family of evolutionarily conserved transcription factors containing a sequence known as Forkhead box or winged helix DNA binding domain (1). The human genome contains 43 Fox proteins that are divided into subfamilies. The FoxP subfamily has four members, FoxP1 - FoxP4, which are broadly expressed and play important roles in organ development, immune response and cancer pathogenesis (2-4). The FoxP subfamily has several characteristics that are atypical among Fox proteins: their Forkhead domain is located at the carboxy-terminal region and they contain motifs that promote homo- and heterodimerization. FoxP proteins usually function as transcriptional repressors (4,5). FoxP3 is crucial for the development of T cells with regulatory properties (Treg) (6). Mutations in FoxP3 are associated with immune dysregulation, polyendocrinopathy, enteropathy, and X-linked syndrome (IPEX) (7), while overexpression in mice causes severe immunodeficiency (8). Research studies have shown that FoxP3 functions as a tumor suppressor in several types of cancer (9-11).

Specificity/Sensitivity: FoxP3 (3G3) Mouse mAb (APC Conjugate) recognizes endogenous levels of total FoxP3 protein. This antibody detects an epitope within the intracellular domain.

Source/Purification: 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.

Storage: Supplied in 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% Na₂S₂O₃, 0.1% gelatin, pH7.2. This product is stable for 6 months when stored at 4°C. *Do not aliquot the antibody. Protect from light. Do not freeze.*

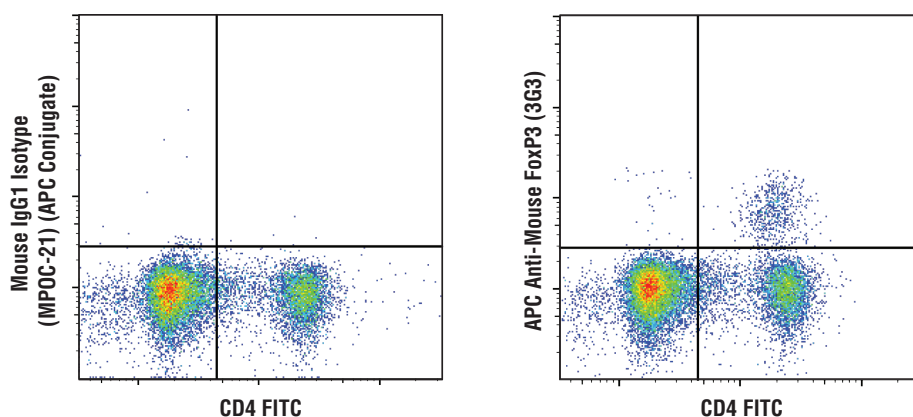
Recommended Antibody Dilutions:

Flow Cytometry 1:160

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Myatt, S.S. and Lam, E.W. (2007) *Nat Rev Cancer* 7, 847-59.
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- (3) Lu, M.M. et al. (2002) *Gene Expr Patterns* 2, 223-8.
- (4) Koon, H.B. et al. (2007) *Expert Opin Ther Targets* 11, 955-65.
- (5) Li, S. et al. (2004) *Mol Cell Biol* 24, 809-22.
- (6) Ochs, H.D. et al. (2007) *Immunol Res* 38, 112-21.
- (7) Bennett, C.L. et al. (2001) *Nat Genet* 27, 20-1.
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- (9) Zuo, T. et al. (2007) *Cell* 129, 1275-86.
- (10) Zuo, T. et al. (2007) *J Clin Invest* 117, 3765-73.
- (11) Wang, L. et al. (2009) *Cancer Cell* 16, 336-46.



Flow cytometric analysis of live mouse splenocytes using FoxP3 (3G3) Mouse mAb (APC Conjugate) (right) and co-stained with CD4-FITC, compared to a concentration-matched Mouse (MOPC-21) mAb IgG1 Isotype Control (APC Conjugate) #49083 (left).

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.