

**Pacific Blue™ anti-human FOXP3**

**Catalog # / Size:** 2201080 / 100 tests  
2201075 / 25 tests

**Clone:** 259D

**Isotype:** Mouse IgG1, κ

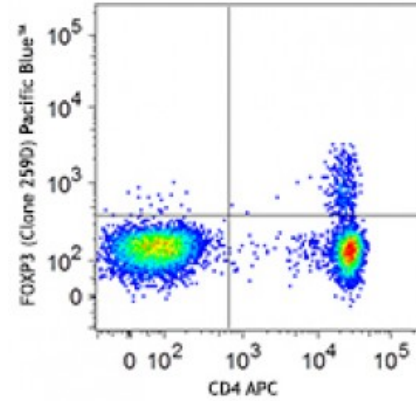
**Immunogen:** Full-length FOXP3 protein

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™ .

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific

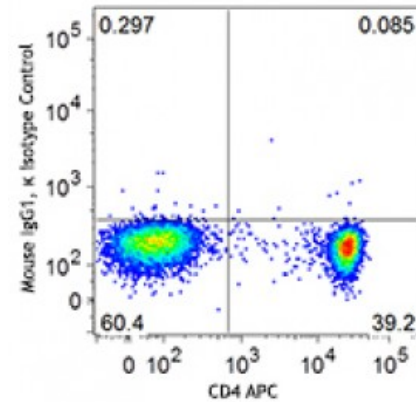


Human peripheral blood lymphocytes were surface stained with CD4 APC and then treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with FOXP3 (clone 259D) Pacific Blue™ (top) or mouse IgG1, κ Pacific Blue™ (bottom).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular flow cytometry . For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 microg per 10<sup>6</sup> cells in 100 microL volume or 100 microL of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application.



\* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: Western blotting<sup>1</sup>, and immunohistochemical staining<sup>1</sup> of acetone-fixed frozen sections and formalin-fixed paraffin-embedded sections. The 259D antibody gives strong positivity on paraffin and frozen sections and the antibody stains some epithelial cells. The binding of 206D to FOXP3 can be partially blocked by 259D, but 206D does not show significant blocking effect on 259D binding.

**NOTE:** For flow cytometric staining with this clone, True-Nuclear™ Transcription

Factor Buffer Set (Cat. No. [424401](#)) offers improved staining and is highly recommended.

- Application**
- References:**
1. Roncador G, *et al.* 2005 *Eur. J. Immunol.* 35:1681.
  2. Yang ZZ, *et al.* 2006. *Blood* 107:3639. [PubMed](#)
  3. Gavin MA, *et al.* 2006. *P. Natl. Acad. Sci. USA* 103:6659. [PubMed](#)
  4. Groh V, *et al.* 2006. *Nature Immunology* 7:755. [PubMed](#)
  5. Tran DQ, *et al.* 2007. *Blood* doi:10.1182/blood-2007-06-094656.[PubMed](#)
  6. Long SA, *et al.* 2008. *J Autoimmun.* 30:293. [PubMed](#)
  7. Gong G, *et al.* 2009. *Blood* 113:837. [PubMed](#)
  8. Long SA, *et al.* 2009. *Eur J. Immunol.* 39:612. [PubMed](#)
  9. Long SA, *et al.* 2010. *Diabetes.* 59:407. [PubMed](#)
  10. Ferraro A, *et al.* 2014. *PNAS.* 111:1111. [PubMed](#)
  11. Vudattu NK, *et al.* 2014. *J Immunol.* 193:587. [PubMed](#)
  12. Dupont G, *et al.* 2014. *Cytokine.* 69:146. [PubMed](#)
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**Description:** FOXP3 is a 50-55 kD transcription factor, also known as Forkhead box protein P3, Scurfin, JM2, or IPEX. It is proposed to be a master regulatory gene and more specific marker of T regulatory cells than most cell surface markers (such as CD4 and CD25). Transduced expression of FOXP3 in CD4<sup>+</sup>/CD25<sup>-</sup> cells has been shown to induce GITR, CD103, and CTLA4 and impart a T regulatory cell phenotype. FOXP3 is mutated in X-linked autoimmunity-allergic dysregulation syndrome (XLAAD or IPEX) in humans and in "scurfy" mice. Overexpression of FOXP3 has been shown to lead to a hypoactive immune state suggesting that this transcriptional factor is a central regulator of T cell activity. In human, unlike in mouse, two isoforms of FOXP3 have been reported: one (FOXP3) corresponding to the canonical full-length sequence; the other (FOXP3  $\delta$ 2) lacking exon 2. The 259D antibody recognizes human FOXP3 epitope in the region of amino acids 105-235.

- Antigen**
- References:**
1. Hori S, *et al.* 2003. *Science* 299:1057.