## **Product Data Sheet**

#### **Purified anti-human FOXP3**

Catalog # / Size: 2201010 / 100 μg

2201005 / 25 μg

Clone: 259D

**Isotype:** Mouse IgG1, κ

Immunogen: Full-length FOXP3 protein

Reactivity: Human

Preparation: The antibody was purified by affinity

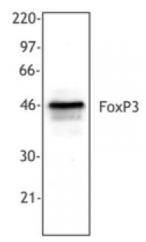
chromatography.

Formulation: This antibody is provided in phosphate-

buffered solution, pH 7.2, containing

0.09% sodium azide.

**Concentration:** 0.5



Formalin-fixed, paraffin-embedded Cynomolgus kidney was treated with EDTA pH 8.0 using a high pressure cooker prior to staining. Staining was carried out with monoclonal anti-FoxP3 (clone 259D) at 10 microg/ml followed by biotinylated goat anti-mouse an

### **Applications:**

**Applications:** Other

Recommended

**Usage:** 

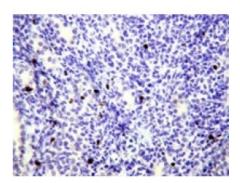
Each lot of this antibody is quality control tested by immunofluorescent staining intracellular cytometric analysis. For flow cytometric staining, the suggested use of this reagent is  $\leq 0.5$  microg per  $10^6$  cells in 100 microL volume. For Western blotting, suggested the working dilution(s) is  $\leq$  5.0 microg/ml in antibody dilution buffer. is recommended that the reagent be titrated for optimal performance for

each application.

Application Notes:

Additional reported applications (for the relevant formats) include: Western blotting1. and immunohistochemical acetone-fixed frozen staining1 of sections and formalin-fixed paraffinembedded 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 bindina.

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



Cell extract from HEK293T cells transfected with human FoxP3 cDNA was resolved by electrophoresis, transferred to nitrocellulose, and probed with monoclonal anti-FoxP3 antibody (clone 259D). Proteins were visualized using a goat anti-mouse secondary conju

Factor Buffer Set (Cat. No. <u>424401</u>) 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

#### **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 δ2) 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.