

KIRAVIA Blue 520™ anti-human FOXP3

Catalog # / Size: 2200660 / 100 tests
2200655 / 25 tests

Clone: 206D

Isotype: Mouse IgG1, κ

Immunogen: Full-length FOXP3 protein

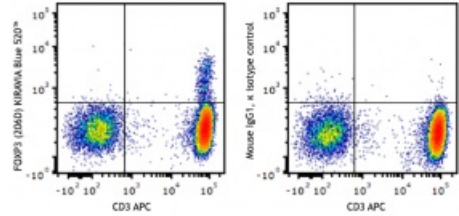
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with KIRAVIA Blue 520™ under optimal conditions.

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

Workshop Number: VI C-7

Concentration: Lot-specific



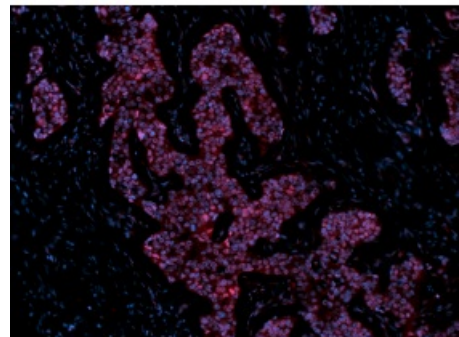
Human peripheral blood lymphocytes were surface stained with anti-human CD3 APC and then treated with True-Nuclear™ Transcription Factor Buffer Set. Cells were then stained with anti-human FOXP3 KIRAVIA Blue 520™ (clone 206D) (right) or mouse IgG1, κ KIRAVIA Blue 520™ isotype control (left).

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 μL per million cells in 100 μL staining volume or 5 μL per 100 μL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* KIRAVIA Blue 520™ has an excitation maximum of 495 nm, and a maximum emission of 520 nm.



Formalin-fixed paraffin-embedded human breast cancer tissue slices were deparaffinized and rehydrated. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0 M, pH 7.4) at 95°C for 40 minutes, washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the slices were stained with 5 μg/mL anti-EGFR (clone A19002A) Alexa Fluor® 647 (red) at 4°C overnight. Nuclei were counterstained with DAPI (green). The image was captured with a 10X objective.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections¹ and formalin-fixed paraffin-embedded sections^{1,8,19-20}, and Western blotting¹. 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. 2722005) offers improved staining and is highly recommended.

Application References:

1. Roncador G, et al. 2005. *Eur. J. Immunol.* 35:1681.(IHC)
2. Yang ZZ, et al. 2006. *Blood* 107:3639.
3. Liu W, et al. 2006. *J. Exp. Med.* 203:1701. [PubMed](#)
4. Bollyky PL, et al. 2007. *J. Immunol.* 179:744.
5. Bell MP, et al. 2007. *J. Immunol.* 179:1893.
6. Tran DQ, et al. 2007. *Blood* doi:10.1182/blood-2007-06-094656. [PubMed](#)
7. Gao Q, et al. 2007. *J Clin Oncol.* 25:2586.(IHC) [PubMed](#)
8. Pillai V, et al. 2008. *Blood* 111:463. [PubMed](#)
9. Zheng Y, et al. 2008. *J. Immunol.* 181:1683. [PubMed](#)
10. Zonios DI, et al. 2008. *Blood* 112:287. [PubMed](#)
11. Kavanagh B, et al. 2008. *Blood.* [PubMed](#)
12. Nevala WK, et al. 2009. *Clin Cancer Res.* 15:1931. [PubMed](#)
13. Grant J, et al. 2009. *Cytometry B Clin Cytom.* 76:69. [PubMed](#)
14. Nigam P, et al. 2010. *J. Immunol.* 184:1690. [PubMed](#)
15. Kmiecik M, et al. 2009. *J. Transl. Med.* 7:89. (ICFC) [PubMed](#)
16. Hartigan-O'Connor DJ, et al. 2007. *J Exp Med.* 204:2679. [PubMed](#)
17. Raghaven S, et al. 2009. *Ann Rheum Dis.* 68:1908. [PubMed](#)
18. Hodi FS, et al. 2014. *Cancer Immunol Res.* 2:632.(IHC) [PubMed](#)
19. Sziros E, et al. 2015. *Clin Cancer Res.* 21:2840.(IHC) [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⁺/CD25⁻ 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 206D antibody recognizes human FOXP3 epitope in the region of amino acids 105-235.

Antigen References:

1. Hori S, et al. 2003. *Science* 299:1057.
2. Gandhi R, et al. 2010. *Nat. Immunol.* 11:846.