

Spark NIR™ 685 anti-human FOXP3 Antibody

Catalog# / Size	320129 / 25 tests 320130 / 100 tests
Clone	206D
Regulatory Status	RUO
Other Names	Forkhead box protein P3, Scurfin, JM2, IPEX, Zinc finger protein JM2
Isotype	Mouse IgG1, κ
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 "scuffy" 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.

Product Details

Verified Reactivity	Human
Reported Reactivity	Baboon, Cynomolgus, Rhesus, Pigtailed Macaque
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Full-length FOXP3 protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Spark NIR™ 685 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular 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. * Spark NIR™ 685 has a maximum excitation of 665 nm and a maximum emission of 685 nm.
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections ¹ and formalin-fixed paraffin-embedded sections ^{1,8,19-20} , and Western blotting ¹ . 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	

(PubMed link indicates
BioLegend citation)

1. Roncador G, et al. 2005. *Eur. J. Immunol.* 35:1681.(IHC)
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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](#)
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10. Zonios DI, et al. 2008. *Blood* 112:287. [PubMed](#)
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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](#)
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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](#)

RRID

AB_2890753 (BioLegend Cat. No. 320129)
AB_2890753 (BioLegend Cat. No. 320130)

Antigen Details

Structure	Forkhead/winged-helix transcription factor family, approximately 50 kD, contains zinc finger and forkhead domains
Distribution	Nuclear; expressed in T regulatory cells
Function	Transcription factor proposed to be a master regulatory gene in T regulatory cell development and a critical factor for immune homeostasis
Interaction	Interacts with DNA
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Transcription Factors
Molecular Family	Nuclear Markers
Antigen References	1. Hori S, et al. 2003. <i>Science</i> 299:1057. 2. Gandhi R, et al. 2010. <i>Nat. Immunol.</i> 11:846.
Regulation	FOXP3 is present at high levels in T regulatory cells, it can also be induced by T cell activation.
Gene ID	50943

Related Protocols

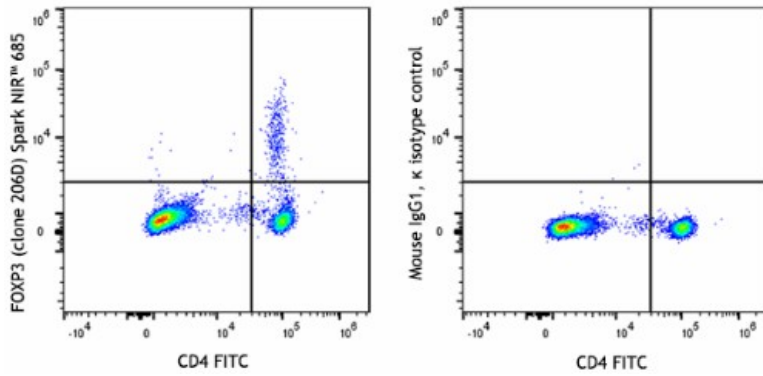
[True-Nuclear™ Transcription Factor Staining Protocol for 96-Well U Bottom Plate](#)

[True-Nuclear™ Transcription Factor Staining Protocol for 5mL Tubes](#)

Other Formats

Purified anti-human FOXP3, Alexa Fluor® 488 anti-human FOXP3, Alexa Fluor® 647 anti-human FOXP3, FITC anti-human FOXP3, Pacific Blue™ anti-human FOXP3, PE anti-human FOXP3, PE/Dazzle™ 594 anti-human FOXP3, True-Nuclear™ One Step Staining Human Treg Flow™ Kit (FOXP3 Alexa Fluor® 488/CD25 PE/CD4 PerCP), Brilliant Violet 421™ anti-human FOXP3, KIRAVIA Blue 520™ anti-human FOXP3, Spark NIR™ 685 anti-human FOXP3 Antibody

Product Data



Human peripheral blood lymphocytes were surface stained with CD4 FITC and then treated with True-Nuclear™ Transcription Factor Buffer set. Cells were then stained with anti-human FOXP3 (clone 206D) Spark NIR™ 685 (left) or mouse IgG1, κ Spark NIR™ 685 isotype control (right).

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