Spark PLUS UV395™ anti-human FOXP3 Antibody

Catalog# / Size	320137 / 25 tests 320138 / 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 "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.

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 PLUS UV395™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 flow cytometry using our True-Nuclear™ Transcription Factor Staining Protocol. For flow cytometric staining, the suggested use of this reagent is 5 µL per 10^6 cells in 100 µL volume. It is highly recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS UV395™ has a maximum excitation of 355 nm and a maximum emission of 385 nm.
Excitation Laser	Ultraviolet Laser (355 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)
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

See More

RRID

AB_3683337 (BioLegend Cat. No. 320137)
AB_3683337 (BioLegend Cat. No. 320138)

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. *Science* 299:1057. 2. Gandhi R, *et al.* 2010. *Nat. Immunol.* 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

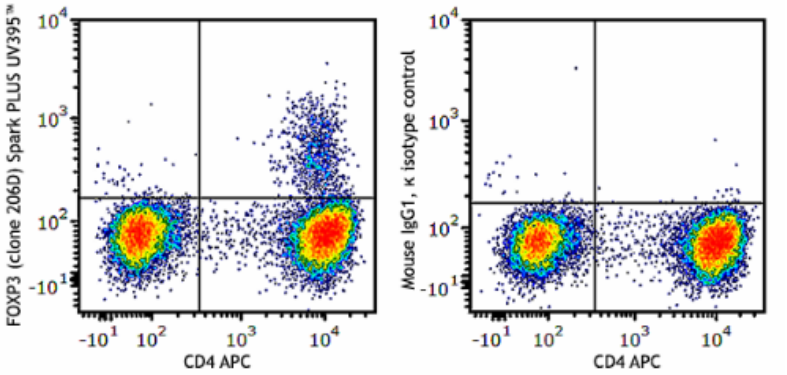
Related Protocols

- Intracellular Flow Cytometry Staining Protocol

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 Human Treg Flow Kit, Brilliant Violet 421™ anti-human FOXP3, KIRAVIA Blue 520™ anti-human FOXP3, Spark NIR™ 685 anti-human FOXP3 Antibody, Brilliant Violet 650™ anti-human FOXP3, Brilliant Violet 785™ anti-human FOXP3, Spark PLUS UV395™ anti-human FOXP3

Product Data



Human peripheral blood lymphocytes were treated with True-Nuclear™ Transcription Factor Buffer Set and were then surfaced stained with anti-human CD4 (clone RPA-T4) APC and intracellularly stained with anti-human FOXP3 (clone 206D) Spark PLUS UV395™ (left) or mouse IgG1, κ Spark PLUS UV395™ isotype control (right).

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587