

Brilliant Violet 421™ anti-human CD25 Antibody

Catalog# / Size	356113 / 25 tests 356114 / 100 tests
Clone	M-A251
Regulatory Status	RUO
Workshop	IV A053
Other Names	IL-2 receptor α chain, Low affinity IL-2R, IL-2R α chain
Isotype	Mouse IgG1, κ
Description	CD25 is a 55 kD type I transmembrane glycoprotein also known as low affinity IL-2 receptor α chain or Tac. It is expressed on progenitor lymphocytes, activated T and B cells, and activated monocytes/macrophages. CD25 is also expressed on a subset of non-stimulated CD4 ⁺ T cells termed T regulatory cells. Soluble CD25/IL-2R α is produced as a consequence of lymphocyte stimulation and is found in biological fluids following inflammatory responses. CD25 associates with IL-2 receptor β (CD122) and common γ (CD132) chains to form a high affinity IL-2R complex.

Product Details

Verified Reactivity	Human
Reported Reactivity	Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human PHA-induced lymphocyte cells
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 Brilliant Violet 421™ 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	FC - Quality tested
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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraformaldehyde fixed frozen sections ¹ and spatial biology (IBEX) ^{2,3} .

The CD25 molecule reveals three epitope regions: A, B, and C. M-A251 antibody recognizes epitope region B. Unlike other CD25 antibody clones, M-A251 can detect CD25 after fixation with paraformaldehyde.

Application References

(PubMed link indicates BioLegend citation)

1. Li H and Pauza CD. 2015. *Eur. J. Immunol.* 45:298. (IHC)
2. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
3. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Bending D, *et al.* 2014. *J Immunol.* 193:2699. [PubMed](#)
2. Elias G, *et al.* 2022. *Elife.* 11:. [PubMed](#)
3. Farhat AM, *et al.* 2021. *Cell Reports.* 35(4):109044. [PubMed](#)
4. Adel-Patient K, *et al.* 2018. *Clin Transl Allergy.* 8:38. [PubMed](#)

RRID

AB_2562163 (BioLegend Cat. No. 356113)
AB_2562164 (BioLegend Cat. No. 356114)

Antigen Details

Structure	Type I transmembrane glycoprotein, 55 kD; low-affinity IL-2 receptor α chain
Distribution	Activated T and B cells, monocytes/macrophages, Tregs
Interaction	Associates with IL-2R β /CD122 and IL-2R γ /CD132 receptor chains to form a high-affinity IL-2R complex
Ligand/Receptor	IL-2
Cell Type	B cells, Macrophages, Monocytes, T cells, Tregs
Biology Area	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors
Antigen References	<ol style="list-style-type: none">1. Knapp W, <i>et al.</i> 1989. <i>Leucocyte Typing IV: White Cell Differentiation Antigens.</i> Oxford University Press.2. Schlossman S, <i>et al.</i> 1995. <i>Leucocyte Typing V: White Cell Differentiation Antigens.</i> Oxford University Press.3. Barclay N, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook.</i> Academic Press Inc.4. Taniguchi T and Minami Y. <i>et al.</i> 1993. <i>Cell</i> 73:5.5. Waldmann T. 1991. <i>J. Biol. Chem.</i> 266:2681.
Gene ID	3559

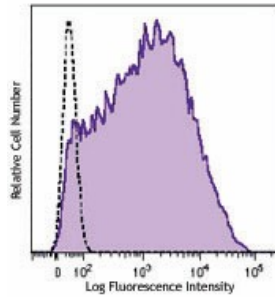
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC/Cyanine7 anti-human CD25, Purified anti-human CD25, PE anti-human CD25, FITC anti-human CD25, PE/Cyanine7 anti-human CD25, APC anti-human CD25, PerCP/Cyanine5.5 anti-human CD25, Brilliant Violet 421™ anti-human CD25, Alexa Fluor® 488 anti-human CD25, Alexa Fluor® 700 anti-human CD25, Brilliant Violet 510™ anti-human CD25, PE/Dazzle™ 594 anti-human CD25, Biotin anti-human CD25, Alexa Fluor® 647 anti-human CD25, Pacific Blue™ anti-human CD25, PerCP anti-human CD25, APC/Fire™ 750 anti-human CD25, Brilliant Violet 711™ anti-human CD25, Brilliant Violet 785™ anti-human CD25, Brilliant Violet 605™ anti-human CD25, KIRAVIA Blue 520™ anti-human CD25, PE/Fire™ 700 anti-human CD25, APC/Fire™ 810 anti-human CD25, Spark NIR™ 685 anti-human CD25 Antibody, Spark YG™ 581 anti-human CD25, PE/Fire™ 640 anti-human CD25 Antibody, PE/Cyanine5 anti-human CD25, Spark Red™ 718 anti-human CD25, GMP PE anti-human CD25

Product Data



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with CD25 (clone M-A251) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

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