

## Brilliant Violet 605™ anti-human CD25 Antibody

<b>Catalog# / Size</b>	356141 / 25 tests 356142 / 100 tests
<b>Clone</b>	M-A251
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	IV A053
<b>Other Names</b>	IL-2 receptor $\alpha$ chain, Low affinity IL-2R, IL-2R $\alpha$ chain
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD25 is a 55 kD type I transmembrane glycoprotein also known as low affinity IL-2 receptor $\alpha$ 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 <sup>+</sup> T cells termed T regulatory cells. Soluble CD25/IL-2R $\alpha$ is produced as a consequence of lymphocyte stimulation and is found in biological fluids following inflammatory responses. CD25 associates with IL-2 receptor $\beta$ (CD122) and common $\gamma$ (CD132) chains to form a high affinity IL-2R complex.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Baboon, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human PHA-induced lymphocyte cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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<b>Excitation Laser</b>	Violet Laser (405 nm)
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<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraformaldehyde fixed frozen sections <sup>1</sup> and spatial biology (IBEX) <sup>2,3</sup> .
	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.
<b>Application References</b>	
<b>(PubMed link indicates BioLegend citation)</b>	<ol style="list-style-type: none"> <li>Li H and Pauza CD. 2015. <i>Eur. J. Immunol.</i> 45:298. (IHC)</li> <li>Radtke AJ, <i>et al.</i> 2020. <i>Proc Natl Acad Sci USA.</i> 117:33455-33465. (SB) <a href="#">PubMed</a></li> <li>Radtke AJ, <i>et al.</i> 2022. <i>Nat Protoc.</i> 17:378-401. (SB) <a href="#">PubMed</a></li> </ol>
<b>RRID</b>	AB_2800962 (BioLegend Cat. No. 356141) AB_2800963 (BioLegend Cat. No. 356142)

## Antigen Details

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<b>Structure</b>	Type I transmembrane glycoprotein, 55 kD; low-affinity IL-2 receptor $\alpha$ chain
<b>Distribution</b>	Activated T and B cells, monocytes/macrophages, Tregs
<b>Interaction</b>	Associates with IL-2R $\beta$ /CD122 and IL-2R $\gamma$ /CD132 receptor chains to form a high-affinity IL-2R complex
<b>Ligand/Receptor</b>	IL-2
<b>Cell Type</b>	B cells, Macrophages, Monocytes, T cells, Tregs
<b>Biology Area</b>	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>Knapp W, <i>et al.</i> 1989. <i>Leucocyte Typing IV: White Cell Differentiation Antigens.</i> Oxford University Press.</li> <li>Schlossman S, <i>et al.</i> 1995. <i>Leucocyte Typing V: White Cell Differentiation Antigens.</i> Oxford University Press.</li> <li>Barclay N, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook.</i> Academic Press Inc.</li> <li>Taniguchi T and Minami Y. <i>et al.</i> 1993. <i>Cell</i> 73:5.</li> <li>Waldmann T. 1991. <i>J. Biol. Chem.</i> 266:2681.</li> </ol>
<b>Gene ID</b>	<a href="#">3559</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

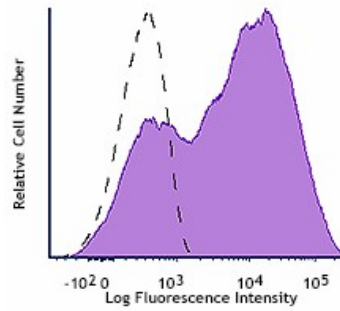
## Other Formats

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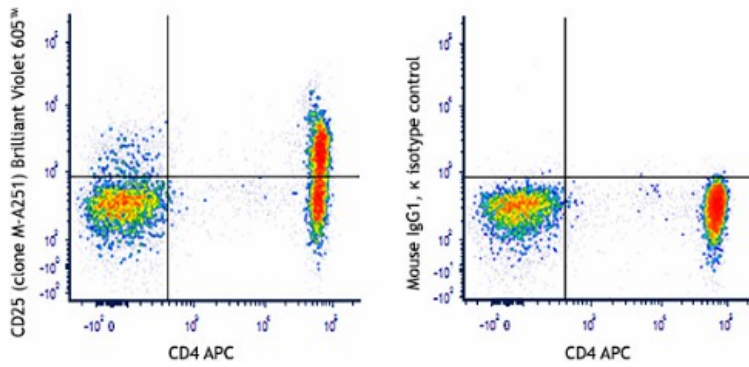
APC/Cyanine7 anti-human CD25, Purified anti-human CD25, PE anti-human CD25, FITC anti-human CD25, PE/Cyanine7 anti-human CD25, APC anti-human CD25, PerCP/Cyanine5.5 anti-human CD25, Brilliant Violet 421™ anti-human CD25, Alexa Fluor® 488 anti-human CD25, Alexa Fluor® 700 anti-human CD25, Brilliant Violet 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

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PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with CD25 (clone M-A251) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ isotype control (open histogram).



Human peripheral blood lymphocytes were stained with CD4 APC and CD25 (clone M-A251) Brilliant Violet 605™ (left) or Mouse IgG1, κ Brilliant Violet 605™ isotype control (right).

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