

PE anti-human CD25 Antibody

Catalog# / Size	356103 / 25 tests 356104 / 100 tests 356134 / 100 µg
Clone	M-A251
Regulatory Status	RUO
Workshop	IV A053
Other Names	IL-2 receptor α chain, Low affinity IL-2R, IL-2Rα 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-2Rα 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	µg size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. test sizes: 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 PE under optimal conditions.
Concentration	µg sizes: 0.2 mg/mL test sizes: 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 using the µg size, the suggested use of this reagent is ≤0.4 µg per million cells in 100 µl volume. For flow cytometric staining using test sizes, 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 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. Cignarella F *et al.* 2018. *Cell metabolism.* 27(6):1222-1235. [PubMed](#)
2. Serra–Peinado C, *et al.* 2019. *Nat Commun.* 10:3705. [PubMed](#)
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4. Beatson RE, *et al.* 2021. *Cell Rep Med.* 2:100473. [PubMed](#)
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6. Holbrook AK, *et al.* 2019. *Physiol Rep.* 7:e14234. [PubMed](#)
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8. Ackerley CG, *et al.* 2022. *Front Immunol.* 13:972170. [PubMed](#)
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12. Bossini-Castillo L, *et al.* 2022. *Cell Genom.* 2:None. [PubMed](#)
13. Waddington KE, *et al.* 2020. *Front Immunol.* 11:51875. [PubMed](#)
14. Yang YK, *et al.* 2021. *Stem Cell Res Ther.* 12:156. [PubMed](#)
15. Abd Hamid M *et al.* 2019. *Cancer Immunol Res.* 7(8):1293-1306. [PubMed](#)
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17. Metz PJ, *et al.* 2020. *Cell Reports.* 30(6):1935-1950. [PubMed](#)
18. Gamradt S, *et al.* 2021. *iScience.* 24:103312. [PubMed](#)
19. Lake CM, *et al.* 2021. *Cell Death Dis.* 12:400. [PubMed](#)
20. Hoseini SS, *et al.* 2021. *Journal for ImmunoTherapy of Cancer.* 9(5):. [PubMed](#)

RRID

AB_2561860 (BioLegend Cat. No. 356103)
AB_2561861 (BioLegend Cat. No. 356104)
AB_2564145 (BioLegend Cat. No. 356134)

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

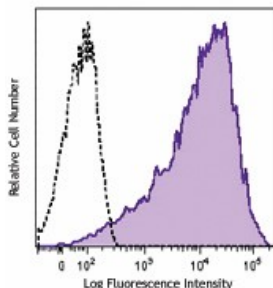
[Cell Surface Flow Cytometry Staining Protocol](#)

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 day) human peripheral blood lymphocytes were stained with CD25 (clone M-A251) PE (filled histogram) or mouse IgG1, κ PE isotype control (open histogram).

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