

Brilliant Violet 785™ anti-mouse CD25 Antibody

Catalog# / Size	102051 / 50 µg
Clone	PC61
Regulatory Status	RUO
Other Names	IL-2R α , Ly-43, p55, Tac
Isotype	Rat IgG1, λ
Description	CD25 is a 55 kD glycoprotein also known as the low affinity IL-2R α , Ly-43, p55, or Tac. It is expressed on activated T and B cells, thymocyte subsets, pre-B cells, and T regulatory cells. In association with CD122 (IL-2R β) and CD132 (common γ chain), CD25 forms the high affinity signaling IL-2 receptor.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	IL-2-dependent cytolytic mouse T-cell clone B6.1
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 785™ under optimal conditions.
Concentration	0.2 mg/ml
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	<p>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 ≤ 0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 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 785™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>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.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation ^{1,2} , <i>in vitro</i> blocking of IL-2 binding to low- and high-affinity receptors ¹⁻⁴ , growth inhibition of IL-2-dependent T-cell lines ¹⁻⁴ , <i>in vivo</i> depletion of CD25 ⁺ CD4 ⁺ Treg cells ^{5-8,10} , and immunohistochemical staining of acetone-fixed frozen sections ² . PC61 antibody recognizes a different epitope than 3C7 antibody (Cat. No. 101902). For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 102040) with endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered.

Application References

(PubMed link indicates BioLegend citation)

1. Lowenthal JW, *et al.* 1985. *Nature* 315:669. (IP, Block)
2. Ceredig R, *et al.* 1985. *Nature* 314:98. (IP, IHC, Block)
3. Lowenthal JW, *et al.* 1985. *J. Immunol.* 135:3988. (Block)
4. Moreau JL, *et al.* 1987. *Eur. J. Immunol.* 17:929. (Block)
5. Takahashi T, *et al.* 2000. *J. Exp. Med.* 192:303. (Deplete)
6. Onizuka S, *et al.* 1999. *Cancer Res.* 59:3128. (Deplete)
7. Lei TC, *et al.* 2005. *Blood* 105:4865. (Deplete)
8. Pasare C, *et al.* 2004. *Immunity* 21:733. (Deplete)
9. León-Ponte M, *et al.* 2007. *Blood* 109:3139.
10. Cao OW, *et al.* 2007. *Blood* doi:10.1182/blood-2007-02-073304. (Deplete)
11. Benson MJ, *et al.* 2007. *J. Exp. Med.* doi:10.1084/jem.20070719.
12. Liu F, *et al.* 2011. *Arch Toxicol.* 85:1383. [PubMed](#)
13. Anguela XM, *et al.* 2013. *Diabetes.* 62:551. [PubMed](#)

Product Citations

1. Zenke S, *et al.* 2022. *Nat Commun.* 13:6459. [PubMed](#)
2. Marques RM, *et al.* 2021. *Cell Death Differ.* 28:3140. [PubMed](#)
3. Yu S, *et al.* 2016. *Mol Ther.* 10.1038/mt.2016.175. [PubMed](#)
4. Tao Z, *et al.* 2022. *Cells.* 11: [PubMed](#)
5. Spath S, *et al.* 2022. *iScience.* 25:104998. [PubMed](#)

RRID

AB_2564131 (BioLegend Cat. No. 102051)

Antigen Details

Structure	Forms high affinity IL-2R with IL-2R β (CD122) and IL-2R γ (CD132), 55 kD
Distribution	Activated T cells and B cells, thymocyte subset, pre-B cells, T regulatory cells
Function	IL-2 receptor
Ligand/Receptor	IL-2
Cell Type	B cells, T cells, Thymocytes, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors
Antigen References	

1. Taniguchi T, *et al.* 1993. *Cell* 73:5-8.
2. Waldmann TA. 1991. *J Biol Chem.* 266:2681-4.
3. Read S, *et al.* 2000. *J Exp Med.* 192:295-302.
4. Lowenthal JW, *et al.* 1985. *J Immunol.* 135:3988-94.

Gene ID

[16184](#)

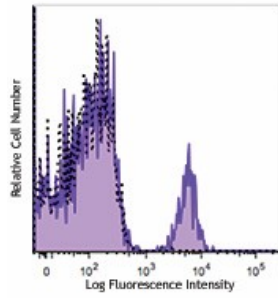
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-mouse CD25, Biotin anti-mouse CD25, FITC anti-mouse CD25, PE anti-mouse CD25, PE/Cyanine5 anti-mouse CD25, Purified anti-mouse CD25, PE/Cyanine7 anti-mouse CD25, Alexa Fluor® 488 anti-mouse CD25, Alexa Fluor® 647 anti-mouse CD25, Pacific Blue™ anti-mouse CD25, Alexa Fluor® 700 anti-mouse CD25, APC/Cyanine7 anti-mouse CD25, PerCP/Cyanine5.5 anti-mouse CD25, PerCP anti-mouse CD25, Brilliant Violet 421™ anti-mouse CD25, Brilliant Violet 605™ anti-mouse CD25, Brilliant Violet 650™ anti-mouse CD25, Ultra-LEAF™ Purified anti-mouse CD25, Brilliant Violet 510™ anti-mouse CD25, PE/Dazzle™ 594 anti-mouse CD25, Brilliant Violet 711™ anti-mouse CD25, Brilliant Violet 785™ anti-mouse CD25, Alexa Fluor® 594 anti-mouse CD25, APC/Fire™ 750 anti-mouse CD25, TotalSeq™-A0097 anti-mouse CD25, KIRAVIA Blue 520™ anti-mouse CD25, TotalSeq™-B0097 anti-mouse CD25, TotalSeq™-C0097 anti-mouse CD25, Spark NIR™ 685 anti-mouse CD25 Antibody, PE/Fire™ 640 anti-mouse CD25, Spark YG™ 581 anti-mouse CD25, APC/Fire™ 810 anti-mouse CD25

Product Data



Con A-stimulated (3 days) C57BL/6 mouse splenocytes were stained with CD25 (clone PC61) Brilliant Violet 785™ (filled histogram). Unstained control cells are represented by the open histogram.

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