

## Brilliant Violet 650™ anti-human CD127 (IL-7R $\alpha$ ) Antibody

<b>Catalog# / Size</b>	351325 / 25 tests 351326 / 100 tests
<b>Clone</b>	A019D5
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	IL-7 receptor $\alpha$ chain, IL-7R $\alpha$
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD127 is a 60-90 kD type I transmembrane glycoprotein also known as IL-7 receptor $\alpha$ chain or IL-7R $\alpha$ . It forms a heterodimer with the common $\gamma$ chain ( $\gamma$ c or CD132) which is shared with the receptors for IL-2, IL-4, IL-9, IL-13, IL-15, and IL-21. CD127 is expressed on immature B cells through early pre-B stage cells, thymocytes (except CD4/CD8 double positive thymocytes), peripheral T cells, and bone marrow stromal cells. CD127 has been reported to be a useful marker for identifying memory and effector T cells. Studies have shown that CD127 expression is down-modulated on Treg cells. It can be used as a marker for differentiation of Treg and conventional T cells. The ligation of IL-7 with its receptor is important for stimulation of mature and immature T cells as well as immature B cell proliferation and development.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Recombinant human CD127
<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 650™ 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>	<p>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 <math>\mu</math>l per million cells in 100 <math>\mu</math>l staining volume or 5 <math>\mu</math>l per 100 <math>\mu</math>l of whole blood.</p> <p>Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></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>
<b>Excitation Laser</b>	Violet Laser (405 nm)

**Application Notes** Additional reported (for the relevant formats) application: proteogenomics<sup>1</sup>.

**Application References** 1. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

(PubMed link indicates BioLegend citation)

**Product Citations**

1. Argüello RJ, *et al.* 2020. *Cell Metab.* 32:1063. [PubMed](#)
2. Leeansyah E, *et al.* 2015. *PLoS Pathog.* 11: 1005072. [PubMed](#)
3. Panwar B, *et al.* 2021. *Genome Res.* 31:659. [PubMed](#)
4. Meng S, *et al.* 2018. *Mol Med Rep.* 18:4247. [PubMed](#)
5. Torres-Ruiz J, *et al.* 2021. *Front Immunol.* 12:689966. [PubMed](#)
6. Herter JM, *et al.* 2022. *Strahlenther Onkol.* Online ahead of print. [PubMed](#)
7. Wang J, *et al.* 2020. *Cancer Immunol Res.* 794:8. [PubMed](#)
8. You M, *et al.* 2021. *Nat Cell Biol.* 23:620. [PubMed](#)
9. Cottineau J, *et al.* 2017. *J Clin Invest.* 127:1991. [PubMed](#)
10. Lo Tartaro D, *et al.* 2022. *Cells.* 11: [PubMed](#)
11. FitzPatrick MEB, *et al.* 2021. *Cell Rep.* 34:108661. [PubMed](#)
12. Kong XF, *et al.* 2018. *Nat Immunol.* 19:973. [PubMed](#)
13. Hill DL, *et al.* 2019. *J Exp Med.* 216:1857. [PubMed](#)
14. Dai B, *et al.* 2021. *Cell Reports Medicine.* 2(8):100381. [PubMed](#)

**RRID** AB\_11125369 (BioLegend Cat. No. 351325)  
AB\_2562095 (BioLegend Cat. No. 351326)

## Antigen Details

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**Structure** Type I transmembrane glycoprotein, associates with CD132, 60-90 kD

**Distribution** Immature B cells through early pre-B stage, thymocytes (except CD4/CD8 double positive thymocytes), peripheral T cells, bone marrow stromal cells

**Function** T cell and immature B cell proliferation and development

**Ligand/Receptor** IL-7

**Cell Type** B cells, T cells, Thymocytes, Tregs

**Biology Area** Immunology

**Molecular Family** CD Molecules, Cytokine/Chemokine Receptors

**Antigen References**

1. Sudo T, *et al.* 1993. *P. Natl. Acad. Sci. USA* 90:9125.
2. He YW and Malek TR. 1998. *Crit. Rev. Immunol.* 18:503.
3. Huster KM, *et al.* 2004. *P. Natl. Acad. Sci. USA* 101:5610.
4. Pillai M, *et al.* 2004. *Leukemia Lymphoma* 45:2403.
5. Morrissey PJ, *et al.* 1989. *J. Exp. Med.* 169:707.
6. Liu W, *et al.* 2006. *J. Exp. Med.* 203:1701.

**Gene ID** [3575](#)

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

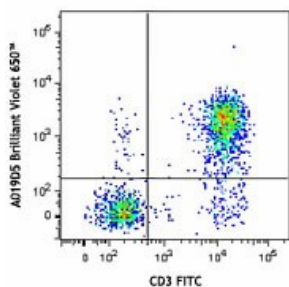
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Purified anti-human CD127 (IL-7R $\alpha$ ), PE anti-human CD127 (IL-7R $\alpha$ ), Pacific Blue™ anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 421™ anti-human CD127 (IL-7R $\alpha$ ), FITC anti-human CD127 (IL-7R $\alpha$ ), Alexa Fluor® 488 anti-human CD127 (IL-7R $\alpha$ ), APC anti-human CD127 (IL-7R $\alpha$ ), Alexa Fluor® 647 anti-human CD127 (IL-7R $\alpha$ ), PE/Cyanine7 anti-human CD127 (IL-7R $\alpha$ ), PerCP/Cyanine5.5 anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 570™ anti-human CD127 (IL-7R $\alpha$ ), PE/Cyanine5 anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 650™ anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 711™ anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 785™ anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 510™ anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 605™ anti-human CD127 (IL-7R $\alpha$ ), PE/Dazzle™ 594 anti-human CD127 (IL-7R $\alpha$ ), Purified anti-human CD127 (IL-7R $\alpha$ ) (Maxpar® Ready), Alexa Fluor® 700 anti-human CD127 (IL-7R $\alpha$ ), Biotin anti-human CD127 (IL-7R $\alpha$ ), APC/Cyanine7 anti-human CD127 (IL-7R $\alpha$ ), APC/Fire™ 750 anti-human CD127 (IL-7R $\alpha$ ), TotalSeq™-A0390 anti-human CD127 (IL-7R $\alpha$ ), TotalSeq™-B0390 anti-human CD127 (IL-7R $\alpha$ ), TotalSeq™-C0390 anti-human CD127 (IL-7R $\alpha$ ), KIRAVIA Blue 520™ anti-human CD127 (IL-7R $\alpha$ ), Spark NIR™ 685 anti-human CD127 (IL-7R $\alpha$ ), PE/Fire™

640 anti-human CD127 (IL-7R $\alpha$ ), PE/Fire™ 700 anti-human CD127 (IL-7R $\alpha$ ) Antibody, Spark YG™ 581 anti-human CD127 (IL-7R $\alpha$ ), Brilliant Violet 750™ anti-human CD127 (IL-7R $\alpha$ ), TotalSeq™-D0390 anti-human CD127 (IL-7R $\alpha$ ), APC/Fire™ 810 anti-human CD127 (IL-7R $\alpha$ ) Antibody, APC/Fire™ 750 anti-human CD127, PE anti-human CD127, PerCP/Cyanine5.5 anti-human CD127, PE/Cyanine7 anti-human CD127, Spark Red™ 718 anti-human CD127 (IL-7R $\alpha$ )

## Product Data

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Human peripheral blood lymphocytes were stained with CD3 FITC and CD127 (clone A019D5) Brilliant Violet 650™.

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