

## Brilliant Violet 605™ anti-human CD127 (IL-7R $\alpha$ ) Antibody

<b>Catalog# / Size</b>	351333 / 25 tests 351334 / 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 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. <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 605™ is a trademark of Sirigen Group Ltd.  <a href="#">Learn more about Brilliant Violet™.</a>
<b>Excitation Laser</b>	Violet Laser (405 nm)

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**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)

**Product Citations**

1. Rueschenbaum S, *et al.* 2021. *Front Immunol.* 11:581352. [PubMed](#)
2. Cella M, *et al.* 2019. *Nat Immunol.* 1.513888889. [PubMed](#)
3. Kim P, *et al.* 2014. *J Immunol.* 192:2622. [PubMed](#)
4. Camiolo MJ, *et al.* 2021. *Cell Reports.* 35(2):108974. [PubMed](#)
5. Herrera FG, *et al.* 2019. *Int J Radiat Oncol Biol Phys.* 103:320. [PubMed](#)
6. Wild K, *et al.* 2021. *Nat Commun.* 12:6720. [PubMed](#)
7. Zhu S, *et al.* 2022. *J Oncol.* 2022:8724933. [PubMed](#)
8. Omer OS, *et al.* 2020. *Methods Mol Biol.* 2121:199. [PubMed](#)
9. Sekine T, *et al.* 2020. *Cell.* 183:158. [PubMed](#)
10. Gao X, *et al.* 2022. *iScience.* 25:104911. [PubMed](#)
11. Riese P, *et al.* 2022. *Nat Commun.* 13:6894. [PubMed](#)
12. Csomós K, *et al.* 2022. *Nat Immunol.* 23:1256. [PubMed](#)

**RRID**  
AB\_2562019 (BioLegend Cat. No. 351333)  
AB\_2562022 (BioLegend Cat. No. 351334)

## 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](#)

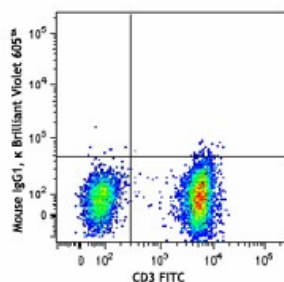
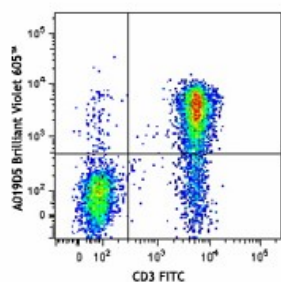
## Other Formats

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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 605™ (top) or mouse IgG1, κ Brilliant Violet 605™ isotype control (bottom).

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