

## Alexa Fluor® 488 anti-human CD127 (IL-7R $\alpha$ ) Antibody

<b>Catalog# / Size</b>	351313 / 25 tests 351314 / 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 Alexa Fluor® 488 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.  * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported (for the relevant formats) application: proteogenomics <sup>1</sup> .
<b>Application References</b>	1. Peterson VM, <i>et al.</i> 2017. <i>Nat. Biotechnol.</i> 35:936. (PG)
<b>Product Citations</b>	1. Freeman ZT, <i>et al.</i> 2020. <i>J Clin Invest.</i> 130:1405. <a href="#">PubMed</a> 2. Cheng L, <i>et al.</i> 2021. <i>Cancer Immunol Immunother.</i> Online ahead of print. <a href="#">PubMed</a>

3. Goncharov MM, *et al.* 2022. *Elife*. 11: [PubMed](#)
4. Azreq M, *et al.* 2015. *J Immunol*. 195: 4198 - 4209. [PubMed](#)
5. James E, *et al.* 2016. *PLoS Pathog*. 12: 1005375. [PubMed](#)
6. Overacre-Delgoffe AE, *et al.* 2017. *Cell*. 169:1130. [PubMed](#)
7. van Montfoort N, *et al.* 2018. *Cell*. 175:1744. [PubMed](#)
8. Farhat AM, *et al.* 2021. *Cell Reports*. 35(4):109044. [PubMed](#)

**RRID** AB\_10895911 (BioLegend Cat. No. 351313)  
 AB\_10898315 (BioLegend Cat. No. 351314)

## Antigen Details

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<b>Structure</b>	Type I transmembrane glycoprotein, associates with CD132, 60-90 kD
<b>Distribution</b>	Immature B cells through early pre-B stage, thymocytes (except CD4/CD8 double positive thymocytes), peripheral T cells, bone marrow stromal cells
<b>Function</b>	T cell and immature B cell proliferation and development
<b>Ligand/Receptor</b>	IL-7
<b>Cell Type</b>	B cells, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Sudo T, <i>et al.</i> 1993. <i>P. Natl. Acad. Sci. USA</i> 90:9125.</li> <li>2. He YW and Malek TR. 1998. <i>Crit. Rev. Immunol.</i> 18:503.</li> <li>3. Huster KM, <i>et al.</i> 2004. <i>P. Natl. Acad. Sci. USA</i> 101:5610.</li> <li>4. Pillai M, <i>et al.</i> 2004. <i>Leukemia Lymphoma</i> 45:2403.</li> <li>5. Morrissey PJ, <i>et al.</i> 1989. <i>J. Exp. Med.</i> 169:707.</li> <li>6. Liu W, <i>et al.</i> 2006. <i>J. Exp. Med.</i> 203:1701.</li> </ol>
<b>Gene ID</b>	<a href="#">3575</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

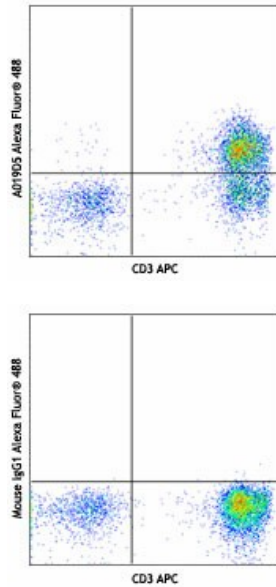
## Other Formats

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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 APC and CD127 (clone A019D5) Alexa Fluor® 488 (top) or mouse IgG1 Alexa Fluor® 488 isotype control (bottom).

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