Brilliant Violet 605™ anti-mouse CD127 (IL-7Rα) Antibody

Catalog# / Size	135025 / 125 µL 135041 / 50 µg
Clone	A7R34
Regulatory Status	RUO
Other Names	IL-7 receptor α chain, IL-7Rα
Isotype	Rat IgG2a, κ
Description	CD127 is a 60-90 kD type I transmembrane glycoprotein also known as IL-7 receptor α chain or IL-7Rα. It forms a heterodimer with the common γ chain (γc 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, thymocytes (except CD4/CD8 double positive thymocytes), peripheral T cells, and bone marrow stromal cells. CD127 has been reported to be an useful marker for identifying memory and effector 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 cells proliferation and development.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	IL-7Ra-IgG1 fusion protein
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 605™ under optimal conditions.
Concentration	µg size: 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 0.6 µg per million cells in 100 µl volume. For flow cytometric staining using the test size, 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. It is recommended that the reagent be titrated for optimal performance for each application. 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. **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 605™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. 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.
Excitation Laser	Violet Laser (405 nm)

Application Notes	A7R34 is able to block clone SB/199 binding to IL-7R.
Application References **(PubMed link indicates BioLegend citation)**	1. Sudo T, *et al.* 1993. *P. Natl. Acad. Sci. USA* 90:9125. 2. Hashi H, *et al.* 2001. *J. Immunol.* 166:3702. 3. Taylor R, *et al.* 2007. *J. Immunol.* 178:5659. 4. Mazzon C, *et al.* 2011. *Blood.* 118:2733. PubMed 5. Jin J, et al. 2011. *J. Immunol.* doi:10.4049/jimmunol.1001238. PubMed
Product Citations	1. Han SJ *et al.* 2017. Immunity. 47(6):1154-1168 . PubMed 2. Qi Z, *et al.* 2022. Nat Commun. 13:182. PubMed 3. Delacher M, *et al.* 2021. Immunity. 54(4):702-720.e17. PubMed 4. Zhong J, *et al.* 2018. Sci Adv. 4:eaas9864. PubMed 5. Linehan JL *et al.* 2018. Cell. 172(4):784-796 . PubMed 6. Progatzky F, *et al.* 2021. Nature. 599:125. PubMed 7. Ganguly S, *et al.* 2021. Cell Mol Gastroenterol Hepatol. 12:891. PubMed 8. Lee W, *et al.* 2021. J Virol. 95:e0053021. PubMed 9. Dionisio-Santos DA, *et al.* 2021. Front Neurosci. 15:758677. PubMed 10. Benci JL *et al.* 2019. Cell. 178(4):933-948 . PubMed 11. Zeis P, *et al.* 2020. Immunity. 53:775. PubMed 12. Dallari S, *et al.* 2021. Cell Host Microbe. 29(6):1014-1029.e8. PubMed 13. Collins N, *et al.* 2020. Cell. 178(5):1088-1101.e15.. PubMed 14. Goldberg EL, *et al.* 2021. Cell Metabolism. :. PubMed 15. Dingler FA, *et al.* 2020. Mol Cell. . PubMed
RRID	AB_2562114 (BioLegend Cat. No. 135025) AB_2572047 (BioLegend Cat. No. 135041)

Antigen Details

Structure	Type I transmembrane glycoprotein, associate 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
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. Okuno Y, *et al.* 2001. *P. Natl. Acad. Sci. USA* 99:6246. 3. Pillai M, *et al.* 2004. *Leukemia Lymphoma* 45:2403.
Gene ID	16197

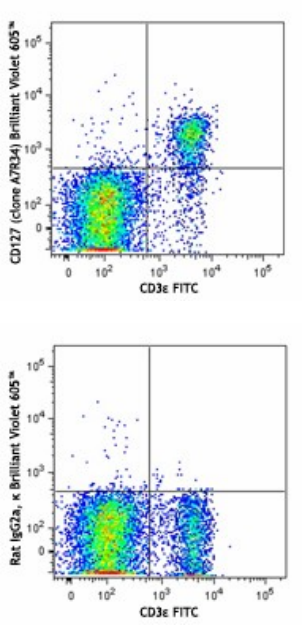
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-mouse CD127 (IL-7Rα), FITC anti-mouse CD127 (IL-7Rα), PE anti-mouse CD127 (IL-7Rα), APC anti-mouse CD127 (IL-7Rα), PE/Cyanine7 anti-mouse CD127 (IL-7Rα), PE/Cyanine5 anti-mouse CD127 (IL-7Rα), Alexa Fluor® 488 anti-mouse CD127 (IL-7Rα), Alexa Fluor® 647 anti-mouse CD127 (IL-7Rα), PerCP/Cyanine5.5 anti-mouse CD127 (IL-7Rα), Biotin anti-mouse CD127 (IL-7Rα), Brilliant Violet 421™ anti-mouse CD127 (IL-7Rα), Brilliant Violet 605™ anti-mouse CD127 (IL-7Rα), Purified anti-mouse CD127 (IL-7Rα) (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse CD127 (IL-7Rα), Brilliant Violet 510™ anti-mouse CD127 (IL-7Rα), Brilliant Violet 711™ anti-mouse CD127 (IL-7Rα), Brilliant Violet 785™ anti-mouse CD127 (IL-7Rα), APC/Cyanine7 anti-mouse CD127 (IL-7Rα), Brilliant Violet 650™ anti-mouse CD127 (IL-7Rα), TotalSeq™-A0198 anti-mouse CD127 (IL-7Rα), TotalSeq™-C0198 anti-mouse CD127 (IL-7Rα), Ultra-LEAF™ Purified anti-mouse CD127 (IL-7Rα), TotalSeq™-B0198 anti-mouse CD127 (IL-7Rα)

Product Data



C57BL/6 mouse splenocytes were stained with CD3ε FITC and CD127 (clone A7R34) Brilliant Violet 605™ (top) or rat IgG2a, κ Brilliant Violet 605™ isotype control (bottom).

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