

Brilliant Violet 510™ anti-human CD1a Antibody

Catalog# / Size	300147 / 25 tests 300148 / 100 tests
Clone	HI149
Regulatory Status	RUO
Workshop	V CD01.01
Other Names	T6, R4
Isotype	Mouse IgG1, κ
Description	CD1a is a 49 kD member of the immunoglobulin superfamily also known as T6 and R4. It is a type I membrane glycoprotein with structural similarities to MHC class I and is non-covalently associated with β_2 -microglobulin. CD1a plays a role in non-peptide glycolipid antigen presentation to CD1-restricted T cells. It is expressed on cortical double positive and single positive thymocytes, Langerhans cells, and dendritic cells. In addition to antigen presentation, CD1a has been implicated in thymic T cell development.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
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 510™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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 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.</p> <p>Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ 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: immunohistochemical staining of acetone-fixed frozen tissue sections.

Application References

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
3. Patton KM, *et al.* 2005. *Infect. Immun.* 73:2083. [PubMed](#)
4. Curti A, *et al.* 2010. *Haematologica.* 95:2022. [PubMed](#)

(PubMed link indicates BioLegend citation)

RRID AB_3662206 (BioLegend Cat. No. 300147)
AB_3662206 (BioLegend Cat. No. 300148)

Antigen Details

Structure Ig superfamily, MHC I-like molecule, type I transmembrane glycoprotein, 49 kD

Distribution Cortical thymocytes, Langerhans cells, dendritic cells

Function Antigen presentation, lymphocyte activation, thymic T cell development

Ligand/Receptor CD1-restricted TCRs

Cell Type Dendritic cells, Langerhans cells, Thymocytes

Biology Area Immunology, Innate Immunity

Molecular Family CD Molecules

Antigen References

1. Blumberg RS, *et al.* 1995. *Immunol. Rev.* 147:5.
2. Calabi F, *et al.* 1991. *Tissue Antigens* 37:1.
3. Melian A, *et al.* 1996. *Curr. Opin. Immunol.* 8:82.

Gene ID [909](#)

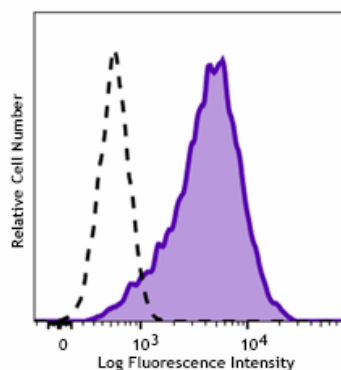
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

FITC anti-human CD1a, PE anti-human CD1a, PE/Cyanine5 anti-human CD1a, APC anti-human CD1a, Purified anti-human CD1a, Biotin anti-human CD1a, Alexa Fluor® 488 anti-human CD1a, Alexa Fluor® 647 anti-human CD1a, Pacific Blue™ anti-human CD1a, Alexa Fluor® 700 anti-human CD1a, Brilliant Violet 421™ anti-human CD1a, PE/Cyanine7 anti-human CD1a, APC/Cyanine7 anti-human CD1a, PerCP/Cyanine5.5 anti-human CD1a, PE/Dazzle™ 594 anti-human CD1a, TotalSeq™-A0402 anti-human CD1a, TotalSeq™-C0402 anti-human CD1a, Brilliant Violet 711™ anti-human CD1a, APC/Fire™ 750 anti-human CD1a, Brilliant Violet 605™ anti-human CD1a, TotalSeq™-B0402 anti-human CD1a, TotalSeq™-D0402 anti-human CD1a, Brilliant Violet 510™ anti-human CD1a, Spark PLUS UV395™ anti-human CD1a

Product Data



Human T lymphoblastic leukemia cell line (MOLT-4) was stained with anti-human CD1a (clone HI149) Brilliant Violet 510™ (filled histogram) or mouse IgG1, κ Brilliant Violet 510™ isotype control (open histogram).

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587