## **Product Data Sheet**

### Brilliant Violet 711™ anti-human CD1a

**Catalog** # / 2100695 / 25 tests

**Size:** 2100700 / 100 tests

Clone: HI149

**Isotype:** Mouse IgG1, κ

Reactivity: Human

**Preparation:** The antibody was purified by affinity

chromatography and conjugated with Brilliant Violet 711™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 711™

and unconjugated antibody.

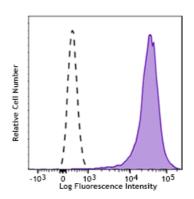
**Formulation:** Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

BSA (origin USA).

Workshop Number: V CD01.01

Concentration: Lot-specific



Human T leukemia cell line (MOLT-4) was stained with CD1a (clone HI149) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram).

### **Applications:**

**Applications:** Flow Cytometry

Recommended

**Usage:** 

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  $\mu$ l per million cells in 100  $\mu$ l staining volume or 5  $\mu$ l per 100  $\mu$ l of whole blood.

Brilliant Violet  $711^{\text{TM}}$  excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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  $711^{\text{TM}}$  is a trademark of Sirigen Group Ltd.

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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

#### **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  $\beta_2$ -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.

# 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.