### **Technical Data Sheet**

# **Purified Mouse Anti-Human CD1a**

#### **Product Information**

 Material Number:
 550366

 Size:
 1.0 ml

 Concentration:
 31.25 μg/ml

 Clone:
 HI149

 Isotype:
 Mouse IgG1, κ

 Reactivity:
 QC Testing: Human

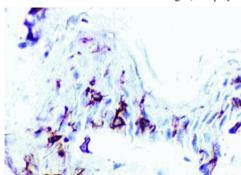
 Workshop:
 V 5T CD01.01

Storage Buffer: Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium

azide.

#### Description

Reacts with a 49 kDa polypeptide associated with  $\beta$ 2-microglobulin. CD1a is expressed on cortical thymocytes, dendritic cells and Langerhans cells. CD1a has structural similarities to the MHC class I antigen, and plays a role in antigen presentation.



Immunohistochemcial staining of dendritic and langerhans cells. Frozen section of human skin was reacted with HI149 antibody. Dendritic cells in the epithelia can be identified by intense brown labeling of their cell surface membranes. Amplification 20X.

#### **Preparation and Storage**

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

#### **Application Notes**

# Application

Аррисации	
Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunohistochemistry-zinc-fixed Tested During Development	
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

#### **Recommended Assay Procedure:**

Immunohistochemistry: The HI149 antibody is recommended to test for immunohistochemical staining of acetone-fixed frozen sections. Tissues tested were human skin and tonsil. The antibody stains dendritic cells and Langerhans cells. The isotype control recommended for use with this antibody is purified mouse IgG1 (Cat. No. 550878). For optimal indirect immunohistochemical staining, the HI149 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure using the Anti-mouse Ig HRP Detection Kit (Cat. No. 551011). A detailed protocol can be found on our website at www.bdbiosciences.com/support/resources. The clone HI149 is not recommended for formalin-fixed paraffin embedded sections.

## **Suggested Companion Products**

Catalog Number	Name	Size	Clone
551011	Anti-Mouse Ig HRP Detection Kit	200 tests	(none)
550878	Purified Mouse IgG1 κ Isotype Control	1.0 ml	MOPC-31C
550880	DAB Substrate Kit	500 tests	(none)
550946	Streptavidin HRP	50 ml	(none)
550337	Biotin Goat Anti-Mouse Ig (Multiple Adsorption)	1.0 ml	Polyclonal
559148	Antibody Diluent for IHC	125 ml	(none)

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### **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 4. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
- 5. An isotype control should be used at the same concentration as the antibody of interest.
- 6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

#### References

Calabi F, Bradbury A. The CD1 system. Tissue Antigens. 1991; 37(1):1-9. (Biology)

Hanau D, Schmitt DA, Bieber T, Schmitt D, Cazenave JP. Possible mechanism of action of CD1a antigens. *J Invest Dermatol.* 1990; 95(5):503-505. (Biology) Knapp W, Dorken B, Rieber EP, et al., ed. *Leucocyte Typing IV*. New York: Oxford University Press; 1989:1-1208. (Biology)

Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. New York: Oxford University Press; 1995. (Clone-specific)

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