

# CD1A monoclonal antibody, clone HI149 (FITC)

Catalog # MAB4377 Size 100 Reactions

Specification	
Product Description	Mouse monoclonal antibody raised against native CD1A.
Immunogen	Native purified CD1A from human thymocytes.
Host	Mouse
Reactivity	Human
Specificity	This antibody reacts with CD1a (T6), a 49 KDa polypeptide associated with beta 2-microglobulin ex pressed on cortical thymocytes (strongly), Langerhans cells, dendritic cells and some T cell leukemia s and lymphomas.  This antibody does not react with peripheral blood T and B lymphocytes, monocytes, granulocytes, pl atelets and erythrocytes.
Form	Liquid
Conjugation	FITC
Isotype	lgG1
Recommend Usage	Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10 <sup>6</sup> cells in a suspension) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.2% BSA, 0.09% sodium azide)
Storage Instruction	Store in the dark at 4°C. Do not freeze.  Avoid prolonged exposure to light.  Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

# **Applications**

Immunohistochemistry (Frozen sections)



Flow Cytometry

Gene Info — CD1A	
Entrez GenelD	909
Gene Name	CD1A
Gene Alias	CD1, FCB6, HTA1, R4, T6
Gene Description	CD1a molecule
Omim ID	188370
Gene Ontology	<u>Hyperlink</u>
Gene Summary	This gene encodes a member of the CD1 family of transmembrane glycoproteins, which are struc turally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. The human genome contains five CD1 family genes organized in a cluster on chromosome 1. The CD1 family members are thought to differ in their ce llular localization and specificity for particular lipid ligands. The protein encoded by this gene locali zes to the plasma membrane and to recycling vesicles of the early endocytic system. Alternatively spliced transcript variants have been observed, but their biological validity has not been determined. [provided by RefSeq
Other Designations	CD1A antigen CD1A antigen, a polypeptide OTTHUMP00000018907 T-cell surface antigen T6/L eu-6 T-cell surface glycoprotein CD1a cluster of differentiation 1 A cortical thymocyte antigen CD1 A differentiation antigen CD1-alpha-3 epidermal dendritic cell marker

### Publication Reference

• CD1 antigen presentation by human dendritic cells as a target for herpes simplex virus immune evasion.

Raftery MJ, Winau F, Kaufmann SH, Schaible UE, Schönrich G.

Journal of Immunology 2006 Nov; 177(9):6207.

Application: Flow Cyt, Human, DC, U373 cells

Characterization of guinea-pig group 1 CD1 proteins.

Hiromatsu K, Dascher CC, Sugita M, Gingrich-Baker C, Behar SM, LeClair KP, Brenner MB, Porcelli SA. Immunology 2002 Jun; 106(2):159.

Application: Flow Cyt, Mouse, 104C1 cells





Separate pathways for antigen presentation by CD1 molecules.

Sugita M, Grant EP, van Donselaar E, Hsu VW, Rogers RA, Peters PJ, Brenner MB.

Immunity 1999 Dec; 11(6):743.

Application: IEM, IF, Human, HeLa cells, Human dendritic cells, Human epidermal langerhans cells, Human skin

# Pathway

Hematopoietic cell lineage

#### Disease

- Campylobacter Infections
- Genetic Predisposition to Disease
- Guillain-Barre Syndrome
- Lung Diseases
- Mycobacterium Infections
- Polyradiculoneuropathy