

1A-364-T100

Monoclonal Antibody to CD1a Allophycocyanin (APC) conjugated (100 tests)

Clone:	HI149
Isotype:	Mouse IgG1
Specificity:	<p>The antibody HI149 reacts with CD1a (T6), a 49 KDa polypeptide associated with beta2-microglobulin expressed on cortical thymocytes (strongly), Langerhans cells, dendritic cells and some T cell leukemias and lymphomas.</p> <p>The antibody does not react with peripheral blood T and B lymphocytes, monocytes, granulocytes, platelets and erythrocytes.</p> <p>HLDA V; WS Code CD01.01</p>
Immunogen:	Human thymocytes
Species Reactivity:	Human, Other not tested
Preparation:	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	<p>Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.</p> <p>Do not use after expiration date stamped on vial label.</p> <p>Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.</p>
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (1 ml) is sufficient for 100 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>CD1a, together with CD1b and c, belongs to group 1 of CD1 glycoproteins. These proteins serve as antigen-presenting molecules for a subset of T cells that responds to specific lipids and glycolipids found in the cell walls of bacterial pathogens or self-glycolipid antigens such as gangliosides, and they have also roles in antiviral immunity. Unlike CD1b, CD1a is excluded from late endosomal compartments and instead traffics independently in the recycling pathway of the early endocytic system, and CD1a antigen presentation is independent upon vesicular acidification.</p>

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Sugita M, Grant EP, van Donselaar E, Hsu VW, Rogers RA, Peters PJ, Brenner MB: Separate pathways for antigen presentation by CD1 molecules. *Immunity*. 1999 Dec;11(6):743-52.
- *Hiromatsu K, Dascher CC, Sugita M, Gingrich-Baker C, Behar SM, LeClair KP, Brenner MB, Porcelli SA: Characterization of guinea-pig group 1 CD1 proteins. *Immunology*. 2002 Jun;106(2):159-72.
- *Raftery MJ, Winau F, Kaufmann SH, Schaible UE, Schönrich G: CD1 antigen presentation by human dendritic cells as a target for herpes simplex virus immune evasion. *J Immunol*. 2006 Nov 1;177(9):6207-14.
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
- *Angel CE, Lala A, Chen CJ, Edgar SG, Ostrovsky LL, Dunbar PR: CD14+ antigen-presenting cells in human dermis are less mature than their CD1a+ counterparts. *Int Immunol*. 2007 Nov;19(11):1271-9.
- *Favali C, Tavares N, Clarêncio J, Barral A, Barral-Netto M, Brodskyn C: Leishmania amazonensis infection impairs differentiation and function of human dendritic cells. *J Leukoc Biol*. 2007 Dec;82(6):1401-6.
- *Hunger RE, Sieling PA, Ochoa MT, Sugaya M, Burdick AE, Rea TH, Brennan PJ, Belisle JT, Blauvelt A, Porcelli SA, Modlin RL: Langerhans cells utilize CD1a and langerin to efficiently present nonpeptide antigens to T cells. *J Clin Invest*. 2004 Mar;113(5):701-8.
- *Mayer WJ, Irschick UM, Moser P, Wurm M, Huemer HP, Romani N, Irschick EU: Characterization of antigen-presenting cells in fresh and cultured human corneas using novel dendritic cell markers. *Invest Ophthalmol Vis Sci*. 2007 Oct;48(10):4459-67.
- *Demedts IK, Brusselle GG, Vermaelen KY, Pauwels RA: Identification and characterization of human pulmonary dendritic cells. *Am J Respir Cell Mol Biol*. 2005 Mar;32(3):177-84.
- *Kirsch BM, Zeyda M, Stuhlmeier K, Grisar J, Smolen JS, Watschinger B, Stulnig TM, Hörl WH, Zlabinger GJ, Säemann MD: The active metabolite of leflunomide, A77 1726, interferes with dendritic cell function. *Arthritis Res Ther*. 2005;7(3):R694-703.
- *Perros F, Dorfmüller P, Souza R, Durand-Gasselin I, Mussot S, Mazmanian M, Hervé P, Emilie D, Simonneau G, Humbert M: Dendritic cell recruitment in lesions of human and experimental pulmonary hypertension. *Eur Respir J*. 2007 Mar;29(3):462-8.
- *McKenna RW, Asplund SL, Kroft SH: Immunophenotypic analysis of hematogones (B-lymphocyte precursors) and neoplastic lymphoblasts by 4-color flow cytometry. *Leuk Lymphoma*. 2004 Feb;45(2):277-85.
- *Chen X, Murakami T, Oppenheim JJ, Howard OM: Triptolide, a constituent of immunosuppressive Chinese herbal medicine, is a potent suppressor of dendritic-cell maturation and trafficking. *Blood*. 2005 Oct 1;106(7):2409-16.
- *Säemann MD, Parolini O, Böhmig GA, Kelemen P, Krieger PM, Neumüller J, Knarr K, Kammlander W, Hörl WH, Diakos C, Stuhlmeier K, Zlabinger GJ: Bacterial metabolite interference with maturation of human monocyte-derived dendritic cells. *J Leukoc Biol*. 2002 Feb;71(2):238-46.
- *And many other.

For laboratory research only, not for drug, diagnostic or other use.