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Datasheet for ABIN301984
anti-CD1a antibody (APC)

3 Images

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Overview

Quantity:	100 tests
Target:	CD1a
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD1a antibody is conjugated to APC
Application:	Flow Cytometry (FACS)

Product Details

Immunogen:	Human thymocytes
Clone:	HI149
Isotype:	IgG1
Specificity:	The antibody HI149 reacts with an extracellular epitope of 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. The antibody does not react with peripheral blood T and B lymphocytes, monocytes, granulocytes, platelets and erythrocytes.
Cross-Reactivity (Details):	Other not tested, Human
Purification:	Purified antibody is conjugated with activated allophycocyanin (APC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	CD1a
Alternative Name:	CD1a (CD1a Products)
Background:	<p>CD1a molecule, 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., T6, Leu-6, HTA1, FCB6</p>
Gene ID:	909
UniProt:	P06126
Pathways:	Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process

Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µL reagent / 100 µL of whole blood or 10 ⁶ cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
Comment:	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.
Restrictions:	For Research Use only

Handling

Reconstitution:	No reconstitution is necessary.
Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze. Avoid prolonged exposure to light.
Storage:	4 °C

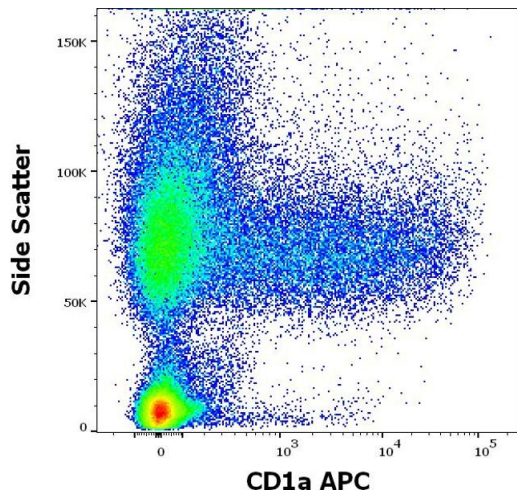
Handling

Storage Comment: Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

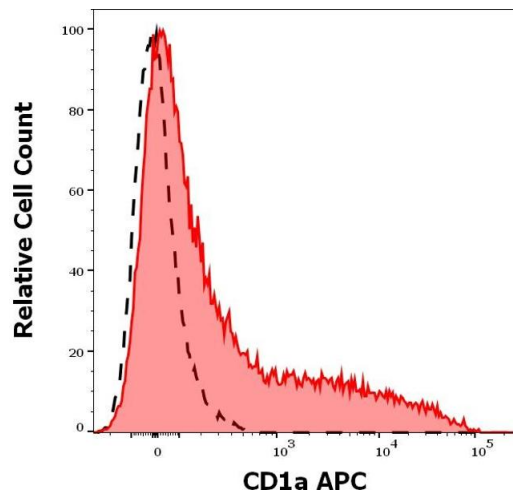
- Product cited in:
- Mayer, Irschick, Moser, Wurm, Huemer, Romani, Irschick: "Characterization of antigen-presenting cells in fresh and cultured human corneas using novel dendritic cell markers." in: **Investigative ophthalmology & visual science**, Vol. 48, Issue 10, pp. 4459-67, (2007) ([PubMed](#)).
- Angel, Lala, Chen, Edgar, Ostrovsky, Dunbar: "CD14+ antigen-presenting cells in human dermis are less mature than their CD1a+ counterparts." in: **International immunology**, Vol. 19, Issue 11, pp. 1271-9, (2007) ([PubMed](#)).
- Perros, Dorfmueller, Souza, Durand-Gasselien, Mussot, Mazmanian, Hervé, Emilie, Simonneau, Humbert: "Dendritic cell recruitment in lesions of human and experimental pulmonary hypertension." in: **The European respiratory journal**, Vol. 29, Issue 3, pp. 462-8, (2007) ([PubMed](#)).
- Demedts, Brusselle, Vermaelen, Pauwels: "Identification and characterization of human pulmonary dendritic cells." in: **American journal of respiratory cell and molecular biology**, Vol. 32, Issue 3, pp. 177-84, (2005) ([PubMed](#)).
- Chen, Murakami, Oppenheim, Howard: "Triptolide, a constituent of immunosuppressive Chinese herbal medicine, is a potent suppressor of dendritic-cell maturation and trafficking." in: **Blood**, Vol. 106, Issue 7, pp. 2409-16, (2005) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



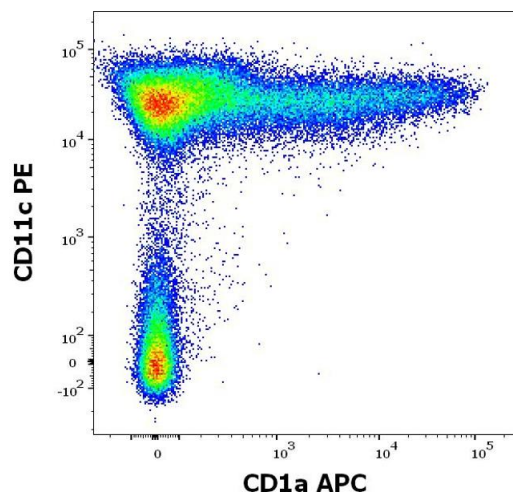
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human stimulated (GM-CSF + IL-4) peripheral blood mononuclear cells stained using anti-human CD1a (HI149) APC antibody (concentration in sample 0.5 µg/mL).



Flow Cytometry

Image 2. Separation of CD11c positive cells stained using CD1a (HI149) APC antibody (concentration in sample 0.5 µg/mL, red-filled) from CD11c positive cells stained using mouse IgG1 isotype control (MOPC-21) APC antibody (concentration in sample 0.5 µg/mL, same as CD1a APC concentration, black-dashed) in flow cytometry analysis (surface staining) of human stimulated (GM-CSF + IL-4) peripheral blood mononuclear cells.



Flow Cytometry

Image 3. Flow cytometry multicolor surface staining pattern of human stimulated (GM-CSF + IL-4) peripheral blood mononuclear cells stained using anti-human CD1a (HI149) APC antibody (concentration in sample 0.5 µg/mL) and anti-human CD11c (BU15) PE antibody (20 µL reagent per million cells in 100 µL of cell suspension).