OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM39006PU-N

CD1 (CD1A) Mouse Monoclonal Antibody [Clone ID: MCD1a]

Product data:

Product Type:	Primary Antibodies
Clone Name:	MCD1a
Applications:	FC, IF, IHC
Recommended Dilution:	**- Flow Cytometry:** for analysis of blood and bone marrow samples. Used in flow cytometry for the identification and quantification of early T cells in blood and for the classification of T cell leukemias (e.g. T-ALL) and lymphomas which have originated from stage II thymocytes (see also "Protocols" below). **- Immunofluorescence / Immunohistochemistry:** using cytospots or frozen tissue sections. MCD1a is used as a marker of Langerhans' cells in normal, dysplastic and neoplastic tissue.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody recognizes the largest (49 kDa) of the three variants of the CD1 heavy chain, designated as CD1a. The 49 kD polypeptide is associated with b2-microglobulin on human cortical thymocytes, dendritic cells and Langerhans' cells. It may also be expressed on some T cell leukemias and lymphoma. The antibody does not react with peripheral blood T and B lymphocytes, monocytes, normal bone marrow mononuclear cells or normal tonsillar T and B lymphocytes.
Formulation:	0.01M sodium Phosphate, 0.15M NaCl State: Aff - Purified State: Liquid purified IgG fraction Stabilizer: 0.2% (w/v) BSA Preservative: 0.09% (w/v) Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.

View online »

Gene Name: CD1a molecule

Database Link: Entrez Gene 909 Human
P06126

Background: CD1a antigen is expressed on human cortical thymocytes, dendritic cells in peripheral lymph nodes and Langerhans' cells in normal, dysplastic and neoplastic tissue.
CD1 has a domain organisation similar to that of MHC Class I and its expression is inversely correlated with that of TCR and MHC Class I.

Synonyms: T6/Leu-6, hTa1

Note: Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion.
3. Reagent data performance is based on EDTA-treated blood. Reagent performance can be affected by the use of other anticoagulants.

Protocol: Flow cytometry method for use with purified monoclonal antibodies
1. Add 100 µl of EDTA-treated blood (i.e. approx. 10e6 leukocytes) to a 5 ml reagent tube. The content of one tube is sufficient to perform one test.
2. Add to each tube 10 µl of purified monoclonal antibody. (Appropriate mouse Ig isotype control samples should always be included in any labeling study).
Vortex the tube to ensure thorough mixing of antibody and cells.
3. Incubate the tube for 15 minutes at room temperature in the dark.
4. Wash the labeled cells by adding 2 ml of PBS containing 0.001% (v/v) Heparin, vortexing and centrifuging (2 min 1000 x g) and discard the supernatant.
5. Add 50 µl of appropriate dilution of F(ab)2 Rabbit Anti Mouse IgG fluorescent conjugate (e.g. FITC or R-PE) in PBS containing 0.001% (v/v) Heparin to the tube. It is recommended that the tube is protected from light.
6. Mix by vortexing and incubate for 15 minutes at room temperature in the dark.
7. Add 100 µl of a lyse reagent and mix immediately.
8. Incubate for 10 minutes at room temperature in the dark.
9. Add 2 ml of demineralized water and incubate for 10 minutes in the dark.
10. Centrifuge the labeled cell suspension for 2 minutes at 1000 x g.
11. Remove the supernatant and resuspend the cells in 200 µl of PBS.
12. Analyze by flow cytometry within four hours (alternatively, the cells may be fixed by 0.05% of formaline in buffered saline for analysis the next day. Some antigens are readily destroyed upon fixation and this should be taken into account when using this alternative).

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Hematopoietic cell lineage