# Human CD1a Antibody

Monoclonal Mouse $IgG_1$ Clone # 703217

Catalog Number: MAB7076

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human CD1a in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) CD1d is observed and no cross-reactivity with with rhCD1b or rhCD1e is observed. |
| **Source** | Monoclonal Mouse $IgG_1$ Clone # 703217 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human CD1a<br>Asp19-Val300 (predicted)<br>Accession # P06126 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS. |

## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Flow Cytometry** | 2.5 µg/$10^6$ cells | See Below |
| **Immunocytochemistry** | 8-25 µg/mL | See Below |
| **Immunohistochemistry** | 3-15 µg/mL | Immersion fixed paraffin-embedded sections of Human Skin |
| **CyTOF-ready** | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |



bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

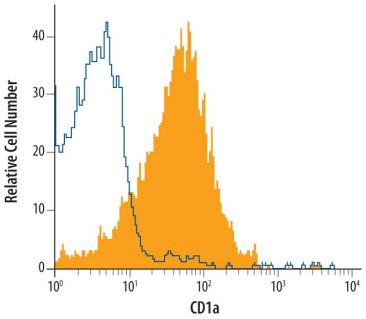
# Human CD1a Antibody

Monoclonal Mouse $IgG_1$ Clone # 703217

Catalog Number: MAB7076

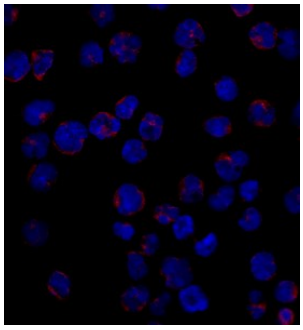
## DATA

### Flow Cytometry



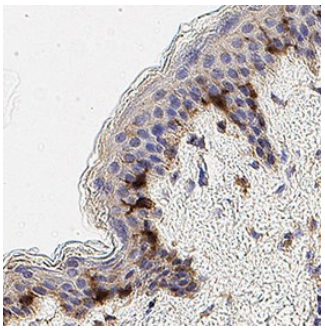

**Detection of CD1a in MOLT-4 Human Cell Line by Flow Cytometry.** MOLT-4 human acute lymphoblastic leukemia cell line was stained with Mouse Anti-Human CD1a Monoclonal Antibody (Catalog # MAB7076, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B).

### Immunocytochemistry



**CD1a in MOLT-4 Human Cell Line.** CD1a was detected in immersion fixed MOLT-4 human acute lymphoblastic leukemia cell line using Mouse Anti-Human CD1a Monoclonal Antibody (Catalog # MAB7076) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to surface and cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

### Immunohistochemistry



**Detection of CD1a in Human Skin.** CD1a was detected in immersion fixed paraffin-embedded sections of Human Skin using Mouse Anti-Human CD1a Monoclonal Antibody (Catalog # MAB7076) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to Langerhan's cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

## PREPARATION AND STORAGE

| | |
|---|---|
| **Reconstitution** | Sterile PBS to a final concentration of 0.5 mg/mL. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

CD1a is a 49 kDa transmembrane glycoprotein in the CD1 family of glycolipid antigen-presenting MHC-like molecules. CD1a contains one Ig-like domain in its extracellular region. It is expressed by most nonhuman mammals but not by mice or rats. Complexes of CD1a with β2-microglobulin and endogenous glycolipids are constitutively expressed on antigen presenting cells, cortical thymocytes, and Langerhans cells. CD1a is a target of autoreactive Th22 helper T cells in the skin.



bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449