

DESCRIPTION

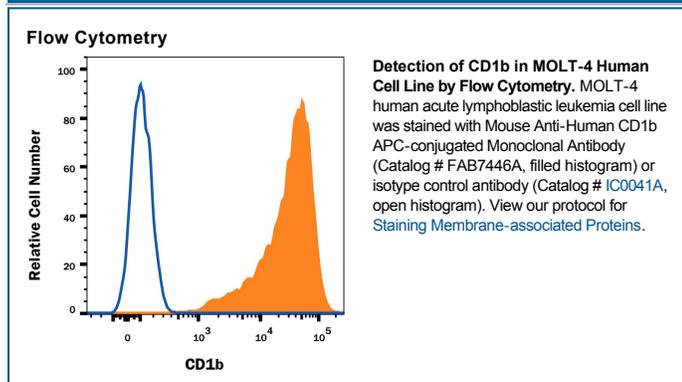
| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human CD1b in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) CD1a, rhCD1c, rhCD1d, rhCD1e, recombinant mouse (rm) CD1d1, or rmCD1d2 is observed. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 737249 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human CD1b Ser18-Ser303 Accession # P29016 |
| Conjugate | Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm |
| Formulation | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

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 | 10 μ L/10 ⁶ cells | See Below |

DATA



PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CD1b is a 44-46 kDa member of the CD1 family of proteins. It is one of five CD1 isoforms (CD1a-e) that resemble MHC-I type molecules. Based on structure, CD1a, 1b and 1c can be grouped together, with CD1d and 1e existing as stand-alone forms. CD1b is a 316 amino acid (aa) type I transmembrane glycoprotein that contains one Ig-like domain in its ECD. It is expressed in the late endosome/lysosome compartment of myeloid-type dendritic cells. Following synthesis, CD1b associates with SAP-C, binds two short lipids in an unusually large ligand-binding groove, and transits either to the plasma membrane, or more commonly, the endosomal compartment. In either case, exposure to Gm⁻ lipid A or mycobacterial glycolipid results in a substitution of the foreign lipid for the two short-chain self lipids, followed by its presentation on the plasma membrane. Select $\alpha\beta$ and $\gamma\delta$ T cell recognize these lipids and typically repond with Th1-type cytokines (IFN- γ and TNF- α). Unlike other CD1 family molecules, CD1b does not seem to have a soluble form. There is no rodent counterpart to human CD1b, only to CD1d.