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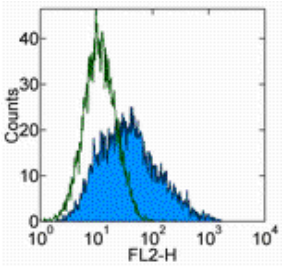
Anti-Mouse CD107a (LAMP-1) Purified

Catalog Number: 14-1071
Also Known As:lysosomal-associated membrane protein 1
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of BALB/c thioglycolate-induced peritoneal exudate cells with 0.25 ug of Rat IgG2a K Isotype Control Purified (cat. 14-4321) (open histogram) or 0.25 ug of Anti-Mouse CD107a (LAMP-1) Purified (filled histogram) followed by Anti-Rat IgG Biotin (cat. 13-4813) and subsequently Streptavidin PE (cat. 12-4317). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD107a (LAMP-1) Purified
REF **Catalog Number:** 14-1071
Clone: eBio1D4B (1D4B)
Concentration: 0.5 mg/mL
Host/Isotype: Rat IgG2a, kappa

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBio1D4B monoclonal antibody reacts with mouse CD107a, also known as lysosomal-associated membrane protein-1 (LAMP-1). CD107a is a type I, lysosomal membrane protein that is extensively glycosylated. It is expressed constitutively in the late endosomes-lysosomes in all cells. CD107a is also transiently expressed on the cell surface of degranulating cytolytic T cells. Additionally, CD107a has been implicated in a variety of cellular functions including cancer metastasis and is also a marker for lysosomal storage disorders.

Applications Reported

This eBio1D4B (1D4B) antibody has been reported for use in intracellular staining followed by flow cytometric analysis, immunoprecipitation, immunoblotting (WB), and immunohistology staining of frozen tissue sections. It has also been reported for use in surface staining in a flow cytometric based degranulation assay. (Fluorochrome conjugated eBio1D4B (1D4B) is recommended for use in flow cytometry.)

Applications Tested

This eBio1D4B (1D4B) antibody has been tested by intracellular staining and flow cytometric analysis of thioglycolate-induced peritoneal exudate cells. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Wolint P, Betts MR, Koup RA, Oxenius A. Immediate cytotoxicity but not degranulation distinguishes effector and memory subsets of CD8+ T cells. J Exp Med. 2004 Apr 5;199(7):925-36.(**1D4B**, degranulation assay, PubMed)

Betts MR, Koup RA. Detection of T-cell degranulation: CD107a and b. Methods Cell Biol. 2004;75:497-512.

Gough NR, Zweifel ME, Martinez-Augustin O, Aguilar RC, Bonifacino JS, Fambrough DM. Utilization of the indirect lysosome targeting pathway by lysosome-associated membrane proteins (LAMPs) is influenced largely by the C-terminal residue of their GYXXphi targeting signals. J Cell Sci. 1999 Dec;112 (Pt 23):4257-69. (**1D4B**, IF, PubMed)

Rohrer J, Schweizer A, Russell D, Kornfeld S. The targeting of Lamp1 to lysosomes is dependent on the spacing of its cytoplasmic tail tyrosine sorting motif relative to the membrane. J Cell Biol. 1996 Feb;132(4):565-76. (**1D4B**, immunoelectron microscopy, PubMed)

Chen JW, Pan W, D'Souza MP, August JT. Lysosome-associated membrane proteins: characterization of LAMP-1 of macrophage P388 and mouse embryo 3T3 cultured cells. Arch Biochem Biophys. 1985 Jun;239(2):574-86. (**1D4B**, CD107a purification, PubMed)

Related Products
00-4222 Flow Cytometry Staining Buffer
12-4317 Streptavidin PE
13-4813 Anti-Rat IgG Biotin (Polyclonal)
14-1072 Anti-Mouse CD107b (LAMP-2) Purified (eBioABL-93 (ABL-93))
14-1079 Anti-Human CD107a (LAMP-1) Purified (eBioH4A3)
14-4321 Rat IgG2a K Isotype Control Purified (eBR2a)

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