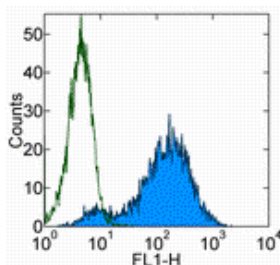


## Anti-Mouse CD107a (LAMP-1) Alexa Fluor® 488

Catalog Number: 53-1071

Also Known As: lysosomal-associated membrane protein 1

RUO: For Research Use Only. Not for use in diagnostic procedures.



Intracellular staining of thioglycolate-induced peritoneal exudate cells with 0.25 µg of Rat IgG2a K Isotype Control Alexa Fluor® 488 (cat. 53-4321) (open histogram) or 0.25 µg of Anti-Mouse CD107a (LAMP-1) Alexa Fluor® 488 (filled histogram). Total cells were used for analysis.

### Product Information

**Contents:** Anti-Mouse CD107a (LAMP-1) Alexa Fluor® 488


**REF** **Catalog Number:** 53-1071

**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. Do not freeze. Light sensitive material.

**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. It has also been reported for use in surface staining in a flow cytometric based degranulation assay.

### 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<sup>5</sup> to 10<sup>8</sup> 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

00-8222 IC Fixation Buffer

00-8333 Permeabilization Buffer (10X)

53-1072 Anti-Mouse CD107b (LAMP-2) Alexa Fluor® 488 (eBioABL-93 (ABL-93))

53-4321 Rat IgG2a K Isotype Control Alexa Fluor® 488 (eBR2a)

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