

Technical Data Sheet

FITC Rat Anti-Mouse CD107a

Product Information

Material Number:	561069
Alternate Name:	LAMP-1
Size:	25 µg
Concentration:	0.5 mg/ml
Clone:	1D4B
Immunogen:	Plasma membrane fraction of mouse embryo NIH 3T3 cell line
Isotype:	Rat (SD) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1D4B antibody recognizes CD107a (Lysosome-Associated Membrane Protein 1, LAMP-1), one of the two major glycoproteins in lysosome membranes which are useful markers to distinguish lysosomes from other organelles. Mouse CD107a consists of a 40-kDa core protein which is heavily glycosylated to form heterogeneous mature glycoprotein of 110-140 kDa. It is principally expressed in epithelial cells and macrophages in a variety of organs in normal and Beige mutant mice. Several lines of evidence suggest that cell-surface mouse and human LAMP-1 glycoproteins, the expression of which may correlate with malignant transformation, participate in intercellular adhesion and adhesion to extracellular matrix.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Recommended Assay Procedure:

This antibody conjugate has been tested by intracellular immunofluorescent staining (≤ 1 µg/million cells, using the Cytofix/Cytoperm™ Kit, Cat. no. 554714) with flow cytometric analysis to assure specificity and reactivity.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554714	BD Cytofix/Cytoperm™ Fixation/Permeabilization Kit	250 tests	(none)
553929	FITC Rat IgG2a, κ Isotype Control	0.25 mg	R35-95

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Arterburn LM, Earles BJ, August JT. The disulfide structure of mouse lysosome-associated membrane protein 1. *J Biol Chem.* 1990; 265(13):7419-7423. (Biology)

Chen JW, Chen GL, D'Souza MP, Murphy TL, August JT. Lysosomal membrane glycoproteins: properties of LAMP-1 and LAMP-2. *Biochem Soc Symp.* 1986; 51:97-112. (Biology)

Chen JW, Murphy TL, Willingham MC, Pastan I, August JT. Identification of two lysosomal membrane glycoproteins. *J Cell Biol.* 1985; 101(1):85-95. (Biology)

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; 239(2):574-586. (Immunogen)

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