

Technical Data Sheet

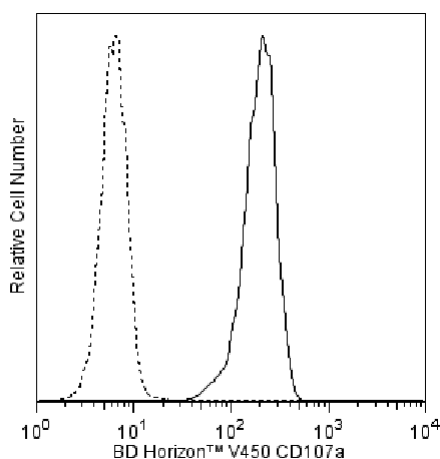
V450 Mouse Anti-Human CD107a**Product Information**

Material Number:	561345
Alternate Name:	LAMP1; LAMP-1; LAMPA; LGP120
Size:	50 tests
Vol. per Test:	5 µl
Clone:	H4A3
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V P008
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Description

The H4A3 monoclonal antibody specifically binds to the heavily glycosylated 110 kDa Lysosomal-associated membrane protein 1, LAMP-1. LAMP-1 is a widely expressed intracellular antigen. It is also expressed on the surface of activated platelets, PHA-activated lymphocytes, cytotoxic T cells and NK cells, and some tumor cell lines, including U937 and KG1a. LAMP-1 has been shown to be a ligand for E-selectin-mediated cell adhesion. LAMP-1 and LAMP-2 (CD107b) are carriers for poly-N-acetyllactosamines and are able to display sialyl Le[x] termini.

The antibody is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.

**Flow cytometric analysis of CD107a on Jurkat cells.**

Jurkat cells were fixed with BD Cytotix™ Fixation Buffer (Cat. No. 554655) and permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723) and subsequently stained either with a BD Horizon™ V450 Mouse IgG1, κ Isotype Control (Cat. No. 560373; dashed line histogram) or with the BD Horizon™ V450 Mouse anti-Human CD107a antibody (Cat. No. 561345; solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact Jurkat cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

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

The antibody was conjugated with BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 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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Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)
560373	V450 Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices**BD Biosciences**

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1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References

- Alto NM, Soderling J, Scott JD. Rab32 is an A-kinase anchoring protein and participates in mitochondrial dynamics. *J Biol Chem.* 2002; 158(4):659-668. (Biology)
- Chen JW, Cha Y, Yuksel KU, Gracy RW, August JT. Isolation and sequencing of a cDNA clone encoding lysosomal membrane glycoprotein mouse LAMP-1. Sequence similarity to proteins bearing onco-differentiation antigens. *J Biol Chem.* 1988; 263(18):8754-8758. (Biology)
- Febbraio M, Silverstein RL. Identification and characterization of LAMP-1 as an activation-dependent platelet surface glycoprotein. *J Biol Chem.* 1990; 265(30):18531-18537. (Biology)
- Fukuda M. Lysosomal membrane glycoproteins. Structure, biosynthesis, and intracellular trafficking. *J Biol Chem.* 1991; 266(32):21327-21330. (Biology)
- Fukuda M, Viitala J, Matteson J, Carlsson SR. Cloning of cDNAs encoding human lysosomal membrane glycoproteins, h-lamp-1 and h-lamp-2. Comparison of their deduced amino acid sequences. *J Biol Chem.* 1988; 263(35):18920-18928. (Biology)
- Hocking DC, Kowalski K. A cryptic fragment from fibronectin's III1 module localizes to lipid rafts and stimulates cell growth and contractility. *J Cell Biol.* 2002; 158(1):175-184. (Biology)
- Sawada R, Lowe JB, Fukuda M. E-selectin-dependent adhesion efficiency of colonic carcinoma cells is increased by genetic manipulation of their cell surface lysosomal membrane glycoprotein-1 expression levels. *J Biol Chem.* 1993; 268(17):12675-12681. (Biology)
- Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press; 1995. (Biology)
- Spoerl Z, Stumpf M, Noegel AA, Hasse A. Oligomerization, F-actin interaction, and membrane association of the ubiquitous mammalian coronin 3 are mediated by its carboxyl terminus. *J Biol Chem.* 2002; 277(50):48858-48867. (Biology)