## **Technical Data Sheet**

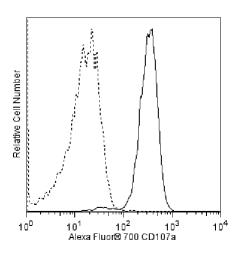
# Alexa Fluor<sup>®</sup> 700 Mouse Anti-Human CD107a

### **Product Information**

Material Number:	561340
Alternate Name:	LAMP1; LAMP-1; LAMPA; LGP120
Size:	50 tests
Vol. per Test:	5 μl
Clone:	H4A3
Isotype:	Mouse IgG1, ĸ
Reactivity:	QC Testing: Human
Workshop:	V P008
Storage Buffer:	Aqueous buffered solution containing protein stabilizer and $\leq 0.09\%$ 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.



Flow cytometric analysis of CD107a on Jurkat cells. Jurkat cells were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655) and permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723) and subsequently stained either with a Alexa Fluor® 700 Mouse IgG1, κ Isotype Control (Cat. No. 557882; dashed line histogram) or with the Alexa Fluor® 700 Mouse anti-Human CD107a antibody (Cat. No. 561340; 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 to Alexa Fluor® 700 under optimum conditions, and unreacted Alexa Fluor® 700 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 T	Routinely Tested					
Suggested	l Compani	on Product	S					
<u>Catalog Nun</u>	ıber	Name					Size	Clone
554655		Fixation Buffer					100 ml	(none)
554723		Perm/Wash Buffer					100 ml	(none)
557882		Alexa Fluor <sup>®</sup> 700 Mouse IgG1, κ Isotype Control					0.1 mg	MOPC-21
554656		Stain Buffer (FBS)				500 ml	(none)	
Product N	otices							
<b>BD Bioscie</b>	nces							
bdbiosciences.c	om							
United States 877.232.8995	<b>Canada</b> 888.259.0187	Europe 32.53.720.550	<b>Japan</b> 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995			
			bdbiosciences.co					
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- 1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^{6}$  cells in a 100-µl 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/pharmingen/protocols for technical protocols.
- 4. The Alexa Fluor®, Pacific Blue<sup>™</sup>, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue<sup>™</sup> dye, and Cascade Blue® dye are covered by pending and issued patents.
- 5. Alexa Fluor® 700 has an adsorption maximum of ~700nm and a peak fluorescence emission of ~720nm. Before staining cells with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
- 6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
- 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.
- 8. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

#### 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, Bournsell 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)