# RDSYSTEMS a biotechne brand

# Human LAMP-1/CD107a PE-conjugated Antibody

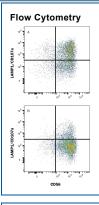
Monoclonal Mouse IgG2B Clone # 508921 Catalog Number: IC4800P 100 Tests

DESCRIPTION			
Species Reactivity	pecies Reactivity Human		
Specificity	city Detects human LAMP1/CD107a in direct ELISAs and Western blots.		
Source	Monoclonal Mouse IgG <sub>2B</sub> Clone # 508921		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LAMP1/CD107a		
	Ala28-Asn380		
	Accession # P11279		
Conjugate	Phycoerythrin		
	Excitation Wavelength: 488 nm		
	Emission Wavelength: 565-605 nm		
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.		

\*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

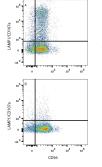
#### APPLICATIONS Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website. Recommended Sample Concentration Flow Cytometry Enriched or expanded human NK cells cultured with 1:1 ratio of K562 cell line target cells 10 µL/10<sup>6</sup> cells Intracellular Staining by Flow Cytometry See Below 10 µL/10<sup>6</sup> cells

## DATA



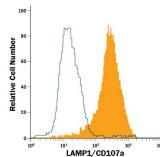
Detection of LAMP-1/CD107a in Human NK cells by Flow Cvtometrv. NK cells were expanded from PBMC using Cloudz Human NK Cell Expansion Kit (Catalog # CLD004) and cultured in the presence of Mouse Anti-Human LAMP-1/CD107a PE-conjugated Monoclonal Antibody (Catalog # IC4800P) for 2 hours either (A) with or (B) without a 1:1 ratio of K562 cell line target cells. Cells were then stained with Mouse Anti-Human NCAM-1/CD56 APC-conjugated Monoclonal Antibody (Catalog # FAB2408A). Quadrant markers were set based on control antibody staining (Catalog # IC0041P). Staining was performed using our Staining Surface Molecules protocol.

## Flow Cytometry



Detection of LAMP-1/CD107a in Human NK cells by Flow Cytometry. Enriched human NK cells either (A) treated with 1:1 ratio with K562 cell line for 5 hours or (B) untreated were stained with Mouse Anti-Human LAMP-1/CD107a PE-conjugated Monoclonal Antibody (Catalog # IC4800P) and Mouse Anti-Human NCAM-1/CD56 APC-conjugated Monoclonal Antibody (Catalog # Catalog # FAB2408A). Quadrant markers were set based on control antibody staining (Catalog # Catalog # IC0041P).

### Intracellular Staining by Flow Cytometry



Detection of LAMP-1/CD107a in THP-1 Human Cell Line by Flow Cytometry. THP-1 human acute monocytic leukemia cell line was stained with Mouse Anti-Human LAMP-/CD107a PE-conjugated Monoclonal ntibody (Catalog # IC4800P, filled istogram) or isotype control antibody Catalog # Catalog # IC0041P, open istogram). Cells were fixed with Flow Cytometry Fixation Buffer (Catalog # Catalog FC004) and permeabilized with Flow ytometry Permeabilization/Wash Buffer I Catalog # Catalog # FC005). View our rotocol for Staining Intracellular Molecules.

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	10	LAN	/IP1/CD1	07a		

PREPARATION AND STORAGE			
Shipping	hipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.		
Stability & Storage Protect from light. Do not freeze.			
	<ul> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>		

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449



# Human LAMP-1/CD107a PE-conjugated Antibody

Monoclonal Mouse IgG<sub>2B</sub> Clone # 508921 Catalog Number: IC4800P 100 Tests

## BACKGROUND

Lysosome-associated membrane protein-1 (LAMP1), also known as CD107a, is a 100-130 kDa member of the LAMP family of glycoproteins. It is expressed in lysosomal and plasma membranes of macrophages, NK and T-cells, and with LAMP2, is essential for the formation of phagolysosomes. On the cell surface, it also presents carbohydrates to selectins. Mature human LAMP1 is a 389 amino acid (aa) type I transmembrane glycoprotein. It contains a 354 aa luminal/extracellular domain (ECD) (aa 28-381) and a 12 aa cytoplasmic tail (aa 405-416). The ECD has two large looping regions (aa 28-193 and 227-381) plus multiple N- and O-linked glycosylation sites. There is one potential splice variant that shows a 26 aa substitution in the signal sequence. Over aa 28-380, human LAMP1 shares 64% aa identity with mouse LAMP1.

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**Global** bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956 USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373 Europe | Middle East | Africa TEL +44 (0)1235 529449