# PE anti-human CD107a (LAMP-1) Antibody

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| **Catalog# / Size** | 328607 / 25 tests<br>328608 / 100 tests |
| **Clone** | H4A3 |
| **Regulatory Status** | RUO |
| **Workshop** | P PR-63; BP 473; P P008 |
| **Other Names** | Lysosome-Associated Membrane Protein 1, LGP-120, LAMP-1 |
| **Isotype** | Mouse IgG1, κ |
| **Description** | CD107a, also known as Lysosome-Associated Membrane Protein 1 (LAMP-1) or LGP-120, is a 110-140 kD type I membrane glycoprotein. Mature CD107a is heavily glycosylated from a 40 kD core protein. This molecule is located on the luminal side of lysosomes. Upon activation, CD107a is transferred to the cell membrane surface of activated platelets, activated lymphocytes, macrophages, epithelial cells, endothelial cells, and some tumor cells. CD107a has been suggested to play a role in the protection of lysosomal membrane from lysosomal hydrolases which is involved in cell adhesion and regulation of tumor metastasis, and mediates autoimmune disease progression. CD107a is a ligand for galaptin and E-selectin. Surface expression of LAMP-1 has been shown to correlate with $CD8^+$ T cell and NK cell cytotoxicity. |

## Product Details

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| **Verified Reactivity** | Human |
| **Reported Reactivity** | African Green, Baboon, Chimpanzee, Cynomolgus, Pigtailed Macaque, Rhesus |
| **Antibody Type** | Monoclonal |
| **Host Species** | Mouse |
| **Immunogen** | Human adult adherent peripheral blood cells |
| **Formulation** | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA) |
| **Preparation** | The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. |
| **Concentration** | Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.) |
| **Storage & Handling** | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.** |
| **Application** | FC - Quality tested |
| **Recommended Usage** | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. |
| **Excitation Laser** | Blue Laser (488 nm)<br>Green Laser (532 nm)/Yellow-Green Laser (561 nm) |
| **Application Notes** | Additional reported applications (for the relevant formats) include: Western blotting[8], immunohistochemical staining[2], immunofluorescence[5,7], and immunoprecipitation[5].<br><br>This antibody is specific to human LAMP-1. Positive control: Hela cells; LAMP-1 molecular weight appears to be at ~110 kDa on the gel due to high glycosylation. |

**Application References**

**(PubMed link indicates BioLegend citation)**


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**Product Citations**

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**RRID**

AB_1186062 (BioLegend Cat. No. 328607)
AB_1186040 (BioLegend Cat. No. 328608)

## Antigen Details

**Structure**

LAMP-1 is a 417 amino acid protein with a molecular mass of 45 kD.

**Distribution**

Macrophages, epithelial cells, endothelial cells, some tumor cells; located on the luminal side of lysosomes or on the surface of cell membranes

**Function**

Protect lysosomal membrane from lysosomal hydrolases, adhesion

**Ligand/Receptor**

Galaptin

**Cell Type**

Endothelial cells, Epithelial cells, Macrophages

**Biology Area**

Cell Biology, Immunology, Neurodegeneration, Neuroscience, Protein Trafficking and Clearance

**Molecular Family**

Adhesion Molecules, CD Molecules

**Antigen References**

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**Gene ID** 3916

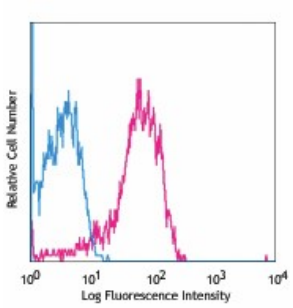
## Related Protocols

Cell Surface Flow Cytometry Staining Protocol

## Other Formats

Biotin anti-human CD107a (LAMP-1), Purified anti-human CD107a (LAMP-1), FITC anti-human CD107a (LAMP-1), PE anti-human CD107a (LAMP-1), Alexa Fluor® 488 anti-human CD107a (LAMP-1), Alexa Fluor® 647 anti-human CD107a (LAMP-1), PerCP/Cyanine5.5 anti-human CD107a (LAMP-1), APC anti-human CD107a (LAMP-1), Pacific Blue™ anti-human CD107a (LAMP-1), Brilliant Violet 421™ anti-human CD107a (LAMP-1), PE/Cyanine7 anti-human CD107a (LAMP-1), APC/Cyanine7 anti-human CD107a (LAMP-1), Brilliant Violet 510™ anti-human CD107a (LAMP-1), Brilliant Violet 605™ anti-human CD107a (LAMP-1), Purified anti-human CD107a (LAMP-1) (Maxpar® Ready), Brilliant Violet 650™ anti-human CD107a (LAMP-1), Brilliant Violet 711™ anti-human CD107a (LAMP-1), PerCP anti-human CD107a (LAMP-1), Brilliant Violet 785™ anti-human CD107a (LAMP-1), PE/Dazzle™ 594 anti-human CD107a (LAMP-1), TotalSeq™-A0155 anti-human CD107a (LAMP-1), TotalSeq™-C0155 anti-human CD107a (LAMP-1), TotalSeq™-B0155 anti-human CD107a (LAMP-1), APC/Fire™ 750 anti-human CD107a (LAMP-1) Antibody, PE/Cyanine5 anti-human CD107a (LAMP-1)

## Product Data




Thrombin-activated human peripheral blood platelets were stained with CD107a (clone H4A3) PE (pink histogram) or mouse IgG1, κ PE (blue histogram).



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