

Alexa Fluor® 647 anti-mouse CD107a (LAMP-1) Antibody

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|--------------------------|---|
| Catalog# / Size | 121609 / 25 µg 121610 / 100 µg |
| Clone | 1D4B |
| Regulatory Status | RUO |
| Other Names | Lysosome-associated membrane glycoprotein 1, lysosomal membrane glycoprotein 1, CD107 antigen-like family member A, lysosome-associated membrane protein 1 |
| Isotype | Rat IgG2a, 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 galactin 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 | Mouse |
| Antibody Type | Monoclonal |
| Host Species | Rat |
| Immunogen | This monoclonal antibody was raised against NIH/3T3 mouse embryonic fibroblast tissue culture cell membranes. It has been mapped to the N-terminus of LAMP-1. |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. |
| Preparation | The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions. |
| Concentration | 0.5 mg/ml |
| 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 ≤ 1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses |
| Excitation Laser | Red Laser (633 nm) |

Product Citations

- Borgo GM, *et al.* 2022. Nat Commun. 13:3656. [PubMed](#)
- Mitchell G, *et al.* 2015. Infect Immun. 83:2175. [PubMed](#)
- Montfoort N, *et al.* 2009. Proc Natl Acad Sci U S A. 106:6370. [PubMed](#)
- Rana A, *et al.* 2020. Front Immunol. 11:536. [PubMed](#)
- Uchil PD *et al.* 2018. Cell host & microbe. 25(1):87-100. [PubMed](#)
- Ng SS, *et al.* 2020. Nat Immunol. 21:1205. [PubMed](#)
- Tran E, *et al.* 2013. J Exp Med. 210:1125. [PubMed](#)

8. Burns JC, *et al.* 2020. eLife. 9:00. [PubMed](#)
9. Marcus A *et al.* 2018. Immunity. 49(4):754-763 . [PubMed](#)
10. van Doremalen N, *et al.* 2020. Nature. 586:578. [PubMed](#)
11. Abiko K, *et al.* 2013. Clin Cancer Res. 19:1363. [PubMed](#)
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13. Millrine D, *et al.* 2016. Proc Natl Acad Sci U S A. 113: 10625 - 10630. [PubMed](#)
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16. Boulch M, *et al.* 2021. Sci Immunol. 6:. [PubMed](#)
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18. Laczkó D, *et al.* 2020. Immunity. 53:724. [PubMed](#)

RRID AB_571990 (BioLegend Cat. No. 121609)
 AB_571991 (BioLegend Cat. No. 121610)

Antigen Details

Structure LAMP-1 is a 406 amino acid protein with a molecular mass of 44 kD.

Gene ID [16783](#)

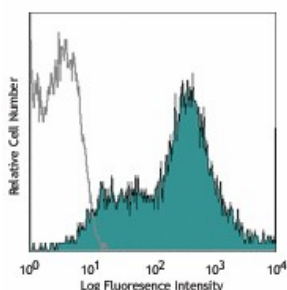
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Dazzle™ 594 anti-mouse CD107a (LAMP-1), PE anti-mouse CD107a (LAMP-1), Purified anti-mouse CD107a (LAMP-1), Biotin anti-mouse CD107a (LAMP-1), FITC anti-mouse CD107a (LAMP-1), Alexa Fluor® 488 anti-mouse CD107a (LAMP-1), Alexa Fluor® 647 anti-mouse CD107a (LAMP-1), APC anti-mouse CD107a (LAMP-1), APC/Cyanine7 anti-mouse CD107a (LAMP-1), Brilliant Violet 421™ anti-mouse CD107a (LAMP-1), PE/Cyanine7 anti-mouse CD107a (LAMP-1), Alexa Fluor® 594 anti-mouse CD107a (LAMP-1), PerCP/Cyanine5.5 anti-mouse CD107a (LAMP-1), Alexa Fluor® 700 anti-mouse CD107a (LAMP-1), Brilliant Violet 510™ anti-mouse CD107a (LAMP-1), Brilliant Violet 711™ anti-mouse CD107a (LAMP-1), APC/Fire™ 750 anti-mouse CD107a (LAMP-1), TotalSeq™-A0905 anti-mouse CD107a (LAMP-1), TotalSeq™-C0905 anti-mouse CD107a (LAMP-1), TotalSeq™-B0905 anti-mouse CD107a (LAMP-1)

Product Data



Thioglycollate-elicited BALB/c mouse peritoneal macrophages stained with 1D4B Alexa Fluor® 647

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