

Product Data Sheet

Pacific Blue™ anti-human CD107a (LAMP-1)

Catalog # / Size: 328623 / 25 µg
328624 / 100 µg

Clone: H4A3

Isotype: Mouse IgG1, κ

Workshop Number: P PR-63; BP 473; P P008

Immunogen: Human adult adherent peripheral blood cells

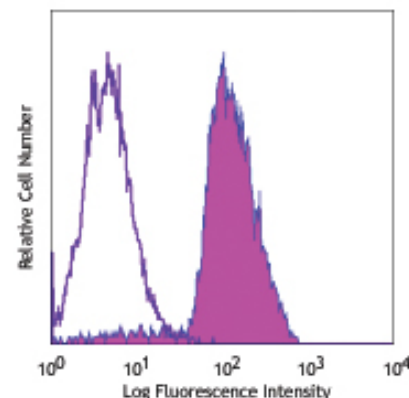
Reactivity: Human, **Cross-Reactivity:** African Green, Baboon, Chimpanzee, Pigtailed Macaque, Rhesus

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Thrombin-activated human peripheral blood platelets were stained with CD107a (clone H4A3) Pacific Blue™ (filled histogram) or mouse IgG1, κ PE (open histogram).

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 2.0 µg per 10^6 cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (for the relevant formats) include: Western blotting, immunohistochemical staining², immunofluorescence^{3,7}, and immunoprecipitation⁵.

Application References:

1. Misse D, *et al.* 1999. *Blood* 93:2454.
2. Furuta K, *et al.* 2001. *Am. J. Pathol.* 159:449. (IHC)
3. Watanabe A, *et al.* 2011. *J. Biol. Chem.* 286:10702. PubMed
4. Baron Gaillard CL, *et al.* 2011. *Mol. Cell. Biol.* 22:5459. PubMed
5. Hauck CR and Meyer TF. 1997. *FEBS Lett.* 405:86. (IF, IP)
6. De Keersmaecker B, *et al.* 2012. *J. Virol.* 86:9351. PubMed
7. Knodler LA, *et al.* 2010. *P. Natl. Acad. Sci. USA.* 107:17733. (IF)

Description: CD107a, also known as Lysosome-Associated Membrane Protein 1 (LAMP-1) or LGP-120, is a 110-140 kD type I membrane glycoprotein. The mature CD107a is heavily glycosylated from a 40 kD core protein. It is expressed by activated platelets, activated lymphocytes, macrophages, epithelial cells, endothelial cells, and some tumor cells. This molecule is located on the luminal side of lysosomes and has been suggested to play a role in the protection of lysosomes membrane from lysosomal hydrolases. Upon activation, CD107a is transferred to the cell membrane surface. It plays a role in cell adhesion and regulation of tumor metastasis, and mediates autoimmune disease progression. CD107a is a ligand for galactin and E-selectin.

Antigen References:

1. Sarafian V, *et al.* 2006. *Arch. Dermatol. Res.* 298:7381.
2. Schlossman SF, *et al.* 1995. *Leukocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press.
3. Sawada R, *et al.* 1993. *J. Biol. Chem.* 268:12675.
4. Chen JW, *et al.* 1988. *J. Biol. Chem.* 263:8754.
5. Chen JW, *et al.* 1986. *Biochem. Soc. Symp.* 51:97112.

Related Products:

Product
Pacific Blue™ Mouse IgG1, κ Isotype Ctrl
Cell Staining Buffer
RBC Lysis Buffer (10X)

Clone
MOPC-21

Application
FC, ICFC
FC, ICC, ICFC
FC, ICFC



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