

# Product Data Sheet

## Alexa Fluor® 488 anti-human CD107a (LAMP-1)

**Catalog # / Size:** 328609 / 25 tests  
328610 / 100 tests

**Clone:** H4A3

**Isotype:** Mouse IgG1,  $\kappa$

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

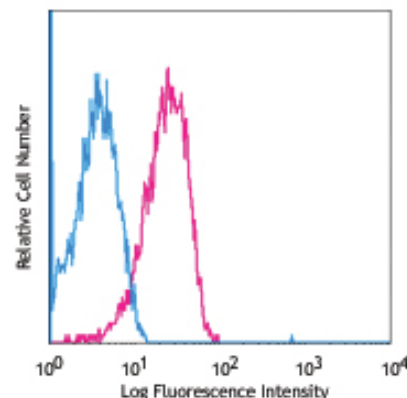
**Immunogen:** Human adult adherent peripheral blood cells

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

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**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) Alexa Fluor® 488 (pink histogram) or mouse IgG1,  $\kappa$  Alexa Fluor® 488 (blue histogram).

## Applications:

**Applications:** FC - Quality tested  
IF - Reported in the literature

**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 5  $\mu$ l per million cells or 5  $\mu$ l per 100  $\mu$ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.

\*\* Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 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 staining<sup>2</sup>, immunofluorescence<sup>5,7</sup>, and immunoprecipitation<sup>5</sup>.

**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:**

<b>Product</b>	<b>Clone</b>	<b>Application</b>
Alexa Fluor® 488 Mouse IgG1, $\kappa$ Isotype Ctrl (FC)	MOPC-21	FC, IF
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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