

**PE/Dazzle™ 594 anti-human CD107a (LAMP-1)**

**Catalog # / Size:** 2243225 / 25 tests  
2243230 / 100 tests

**Clone:** H4A3

**Isotype:** Mouse IgG1, κ

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

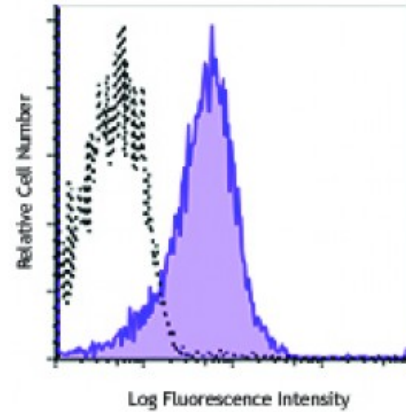
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

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

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

**Concentration:** Lot-specific



Thrombin-activated human peripheral blood platelets were stained with CD107a (clone H4A3) PE/Dazzle™ 594 (filled histogram) or mouse IgG1, κ PE/Dazzle™ 594 isotype control (open histogram).

**Applications:**

**Applications:** Flow Cytometry

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

\* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: Western blotting<sup>8</sup>, 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)
  8. Oh J, *et al.* 2000. *Hum. Mol. Genet.* 9:375. (WB)
  9. Salio M, *et al.* 2013 *PNAS.* 110:4753. [PubMed](#)

**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<sup>+</sup> T cell and NK cell cytotoxicity.

**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.*