

**PE anti-human CD107a (LAMP-1)**

**Catalog # / Size:** 2243035 / 25 tests  
2243040 / 100 tests

**Clone:** H4A3

**Isotype:** Mouse IgG1, κ

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

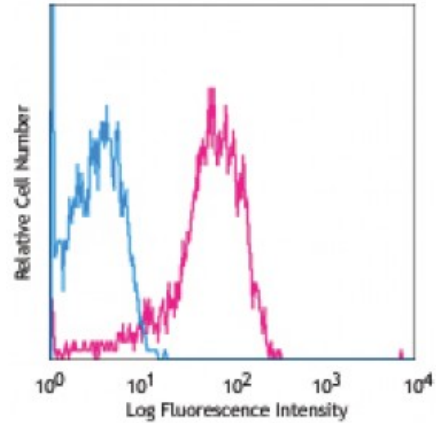
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE 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 (pink histogram) or mouse IgG1, κ PE (blue histogram).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**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:**
- Misse D, *et al.* 1999. *Blood* 93:2454.
  - Furuta K, *et al.* 2001. *Am. J. Pathol.* 159:449. (IHC)
  - Watanabe A, *et al.* 2011. *J. Biol. Chem.* 286:10702. [PubMed](#)
  - Baron Gaillard CL, *et al.* 2011. *Mol. Cell. Biol.* 22:5459. [PubMed](#)
  - Hauck CR and Meyer TF. 1997. *FEBS Lett.* 405:86. (IF, IP)
  - De Keersmaecker B, *et al.* 2012. *J. Virol.* 86:9351. [PubMed](#)
  - Knodler LA, *et al.* 2010. *P. Natl. Acad. Sci. USA.* 107:17733. (IF)
  - Oh J, *et al.* 2000. *Hum. Mol. Genet.* 9:375. (WB)
  - 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.*