

**Alexa Fluor® 700 anti-mouse CD107a (LAMP-1)**

**Catalog # / Size:** 1208135 / 25 µg  
1208140 / 100 µg

**Clone:** 1D4B

**Isotype:** Rat IgG2a, κ

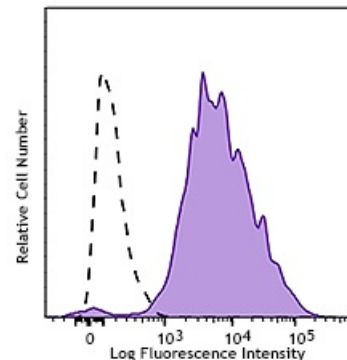
**Immunogen:** This monoclonal antibody was raised against NIH/3T3 mouse embryonic fibroblast tissue culture cell membranes. It has been mapped to the N-terminus of LAMP-1.

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

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

**Concentration:** 0.5 mg/ml



Thioglycollate-elicited BALB/c mouse peritoneal macrophages were stained with CD107a (clone 1D4B) Alexa Fluor® 700 (filled histogram) or rat IgG2a, κ Alexa Fluor® 700 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 ≤ 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® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** This antibody is effective in immunoblotting (WB) and immunohistochemistry (IHC). This antibody is specific to mouse LAMP-1. Positive control: NIH3T3 cells; LAMP-1 molecular weight appears to be at ~110 kDa on the gel due to high glycosylation.

**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.