



A4-671-T100

## Monoclonal Antibody to CD107a Alexa Fluor® 488 conjugated (100 tests)

<b>Clone:</b>	H4A3
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The mouse monoclonal antibody H4A3 recognizes CD107a, an approximately 100-120 kDa glycoprotein expressed mainly on lysosomal, but also on the plasma membrane.
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human PBMC
<b>Species Reactivity:</b>	Human, Non-Human Primates, Mouse
<b>Preparation:</b>	The purified antibody is conjugated with Alexa Fluor® 488 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 0.02% sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD107a (lysosome-associated membrane protein-1, LAMP-1), together with LAMP-2, is a major constituent of lysosomal membrane, 1-2% of total CD107a is found also on the plasma membrane. The LAMP proteins are involved in lysosome biogenesis and are required for fusion of lysosomes with phagosomes. Increased CD107a immunoreactivity is observed in neurones, and in glial cells surrounding senile plaques in Alzheimers disease cases and is localized mainly in medullary epithelial cells, single macrophages and lymphocytes in acute thymic involution. CD107a is a good marker of mast cell activation.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

- \*Mane SM, Marzella L, Bainton DF, Holt VK, Cha Y, Hildreth JE, August JT: Purification and characterization of human lysosomal membrane glycoproteins. *Arch Biochem Biophys.* 1989 Jan;268(1):360-78.
- Furuta K, Ikeda M, Nakayama Y, Nakamura K, Tanaka M, Hamasaki N, Himeno M, Hamilton SR, August JT: Expression of lysosome-associated membrane proteins in human colorectal neoplasms and inflammatory diseases. *Am J Pathol.* 2001 Aug;159(2):449-55.
- \*Deetz CO, Hebbeler AM, Propp NA, Cairo C, Tikhonov I, Pauza CD: Gamma interferon secretion by human Vgamma2Vdelta2 T cells after stimulation with antibody against the T-cell receptor plus the Toll-Like receptor 2 agonist Pam3Cys. *Infect Immun.* 2006 Aug;74(8):4505-11.
- \*Marcenaro S, Gallo F, Martini S, Santoro A, Griffiths GM, Aricó M, Moretta L, Pende D: Analysis of natural killer-cell function in familial hemophagocytic lymphohistiocytosis (FHL): defective CD107a surface expression heralds Munc13-4 defect and discriminates between genetic subtypes of the disease. *Blood.* 2006 Oct 1;108(7):2316-23.
- \*Carlsten M, Björkström NK, Norell H, Bryceson Y, van Hall T, Baumann BC, Hanson M, Schedvins K, Kiessling R, Ljunggren HG, Malmberg KJ: DNAX accessory molecule-1 mediated recognition of freshly isolated ovarian carcinoma by resting natural killer cells. *Cancer Res.* 2007 Feb 1;67(3):1317-25.
- \*Tomescu C, Chehimi J, Maino VC, Montaner LJ: NK cell lysis of HIV-1-infected autologous CD4 primary T cells: requirement for IFN-mediated NK activation by plasmacytoid dendritic cells. *J Immunol.* 2007 Aug 15;179(4):2097-104.
- \*Yu CI, Gallegos M, Marches F, Zurawski G, Ramilo O, García-Sastre A, Banchereau J, Palucka AK: Broad influenza-specific CD8+ T-cell responses in humanized mice vaccinated with influenza virus vaccines. *Blood.* 2008 Nov 1;112(9):3671-8.
- \*Mao H, Tu W, Liu Y, Qin G, Zheng J, Chan PL, Lam KT, Peiris JS, Lau YL: Inhibition of human natural killer cell activity by influenza virions and hemagglutinin. *J Virol.* 2010 May;84(9):4148-57.
- \*Majer F, Vlaskova H, Krol L, Kalina T, Kubanek M, Stolnaya L, Dvorakova L, Elleder M, Sikora J: Danon disease: a focus on processing of the novel LAMP2 mutation and comments on the beneficial use of peripheral white blood cells in the diagnosis of LAMP2 deficiency. *Gene.* 2012 May 1;498(2):183-95.
- \*And many other.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at [www.exbio.cz](http://www.exbio.cz).

This product is provided under an agreement between Molecular Probes, Inc. (a wholly owned subsidiary of Invitrogen Corporation), and Exbio Praha, a.s., and the manufacture, use, sale or import of this product may be subject to one or more U.S. patents, pending applications, and corresponding non-U.S. equivalents, owned by Molecular Probes, Inc. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity), including use in flow cytometry that does not utilize a bead based array, but excluding use in combination with microarrays or High Content Screening. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. For information on purchasing a license to this product for any other use, contact Molecular Probes, Inc., Business Development, 29851 Willow Creek Road, Eugene, OR 97402, USA, Tel: (541) 465-8300. Fax: (541) 335-0504.

**For laboratory research only, not for drug, diagnostic or other use.**

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 666 | Fax: +420 261 090 660 | [orders@exbio.cz](mailto:orders@exbio.cz) | [www.exbio.cz](http://www.exbio.cz)