TECHNICAL DATA SHEET

CyFlow™ CD107a Azide Free
Anti-Hu/Ms; Clone H4A3

REF **AC942051**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD107a
Alternative Names	LAMP-1
Clone	H4A3
Clonality	monoclonal
Format	Azide Free
Host / Isotype	Mouse / IgG1
Species Reactivity	Human | Mouse, Non-Human Primates
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human peripheral blood mononuclear cells (PBMC)

Specificity

The mouse monoclonal antibody H4A3 recognizes CD107a antigen, a 100-120 kDa glycoprotein expressed mainly on lysosomal, but also on the plasma membrane.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot
- Immunohistochemistry
- Immunocytochemistry

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH ≈7.4; 0.2 µm filter sterilized.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD107a (LAMP-1; lysosome-associated membrane protein-1), together with CD107b (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.

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. < PMID: 2912382 >
- 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. < PMID: 11485903 >

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- 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. < PMID: 16861636 >
- 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 subtypesof the disease. Blood. 2006 Oct 1; 108(7):2316-23. < PMID: 16778144 >
- 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. < PMID: 17283169 >
- 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. < PMID: 17675468 >
- 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. < PMID: 18713944 >
- 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. < PMID: 20164232 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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