

PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD107a

PURE	RUO	REF	IQP-644P	▽ 100 test
R-PE	RUO	REF	IQP-644R	▽ 100 test
APC	RUO	REF	IQP-644A	▽ 100 test

RUO **For Research Use Only**



Description

Clone H4A3

Isotype Murine IgG1

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

Species Human, Non-Human Primates, Mouse

Immunogen Human PBMC

Summary 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.

Applications FC, WB, IHC(P), IHC(F), ICC. Determining optimal working dilutions by titration test.

Limitations

1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
4. Reagent performance can be affected by the use of anticoagulants.



Handling and Storage

Antibodies are supplied in azide free phosphate buffered saline (PBS), approx. pH 7.4; 0.2 µm filter sterilized.. Store the vials at 2-8°C. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

Warranty Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent.

Warning All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

References

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

Explanation of used symbols



Consult instructions for use
Catalogue number
Sufficient for
Caution, consult accompanying document
Keep away from (sun)light
Biological risks
Temperature limitation (°C)
For Research Use Only
Batch code
Use by yyyy-mm-dd
Manufacturer

Products
bright fluorescence

		Label - tandem	Ex -max (nm)	Em -max (nm)
P	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE	488, 532	578
C	CyQ	PE-Cy5.18	488, 532	667
A	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695



IQ Products BV
Rozenburglaan 13a
9727 DL Groningen, The Netherlands

+31 (0)50 57 57 000
+31 (0)50 57 57 002
Technical marketing@iqproducts.nl
Orders orders@iqproducts.nl
www.iqproducts.nl