IOTest CD107a-Pacific Blue

PN B13978 – 0.5 mL – Liquid – 10 µL/test – Clone H4A3

Analyte Specific Reagent.
Analytical and performance characteristics are not established.

SPECIFICITY

The CD107a antigen is the heavily glycosylated 110 kDa lysosomal-associated membrane protein, LAMP-1 (1, 2). Together with LAMP-2, they are the mayor glycoproteins on the membrane of lysosome granules.
CD107a molecule is ubiquitously found as intracellular antigen. It is also expressed on the surface of activated platelets, PHA-activated, a few monocytic cell lines, and fetal thymus stromal cells (3). It has been described as a marker of cytotoxic CD8+ T-cell degranulation (4) and of NK cell functional activity (5). As platelet activation marker, it has characteristics of an adhesive molecule (6).
A minor fraction (<2%) of LAMP-1 is associated with the plasma membrane of most nucleated cells, presumably as a result of selective exchange of lysosomal and plasma membranes. Increased surface expression of LAMP-1 has been observed on transformed cells of high metastatic potential, and on embryonic cells (6, 7).
The monoclonal antibody H4A3 has been assigned to the CD107a cluster of differentiation during the 5th International Workshop on Human Leucocyte Differentiation Antigens in Boston, USA, 1993 (3).

REAGENT

IOTest CD107a-Pacific Blue
Conjugated antibody
PN B13978 - 0.5 mL - Liquid - 10 µL/test

Clone	H4A3
Isotype	IgG1 kappa, Mouse
Immunogen	Adherent spleen cells
Hybridoma	X63 x balb/c
Source	Ascites fluid or supernatant of in vitro cultured hybridoma cells.
Purification	Affinity chromatography
Conjugation	Pacific Blue (Pacific Blue)
Molar Ratio	Pacific Blue / Ig : 6 - 8
Fluorescence	Excites at 405 nm Emits at 455 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

STATEMENTS OF WARNING

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded.
2. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
3. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
4. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
5. Do not use antibody beyond the expiration date on the label.
6. Do not expose reagents to strong light during storage or incubation.
7. Avoid microbial contamination of reagents or incorrect results might occur.
8. Use good laboratory practices when handling this reagent.

STORAGE AND HANDLING CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze.
No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. J W Chen, T L Murphy, M C Willingham, I Pastan, and J T August. Identification of two lysosomal membrane glycoproteins. J Cell Biol 1985 101:85-95. Published July 1, 1985, doi:10.1083/jcb.101.1.85.
2. J W Chen, Y Cha, K U Yuksel, R W Gracy, and J T August. Isolation and sequencing of a cDNA clone encoding lysosomal membrane glycoprotein mouse LAMP-1. Sequence similarity to proteins bearing onco-differentiation antigens. J. Biol. Chem. 1988 263: 8754-8758.
3. Schlossman SF, Boumsell L, Gilks W, et al, ed. Leukocyte Typing V: White Cell Differentiation Antigens. New York: Oxford University Press; 1995.XXXXX.
4. Betts MR, Brenchley JM, Price DA, De Rosa SC, Douek DC, Roederer M, Koup RA. Sensitive and viable identification of antigen-specific CD8+ T cells by a flow cytometric assay for degranulation. J Immunol Methods. 2003, 281(1-2):65-78.
5. Alter G, Malenfant JM, Altfeld M. CD107a as a functional marker for the identification of natural killer cell activity. J Immunol Methods. 2004, 294(1-2):15-22.
6. Febbraio M, Silverstein RL. Identification and characterization of LAMP-1 as an activation-dependent platelet surface glycoprotein. J Biol Chem. 1990; 265(30):18531-18537.
7. Lippincott-Schwartz, J., and Fambrough, D. M. Lysosomal Membrane Dynamics: Structure and Interorganellar Movement of a Major Lysosomal Membrane Glycoprotein Cell, 1987, 49,669-677.

TRADEMARKS

MANUFACTURED BY :

IMMUNOTECH SAS
a Beckman Coulter Company
130, avenue de Lattre de Tassigny
B.P. 177 - 13276 Marseille Cedex 9
France

For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.

www.beckmancoulter.com

Printed in France.
Made in France.