

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD57 molecule, originally named HNK-1, is a glycoprotein with a molecular weight of 110 – 115 kDa. The CD57 molecule is an oligosaccharide antigenic compound with sulfated glucuronic acid residues. It is linked to a variety of polypeptides, lipids, and chondroitin sulfate proteoglycans found on diverse tissues. The CD57 molecule is expressed on subsets of hematopoietic cells, neuroectodermal cells, neuroendocrine cells, striated muscle and prostatic epithelium (1 – 4). The CD57 antigen was initially identified in hematopoietic tissue on the majority of large granular lymphocytes (LGL). In most adults the CD57 antigen is expressed on a subset of NK cells and CD8 positive T lymphocytes (3). The CD57 molecule is expressed on a subset of bone marrow cells and seems not to be found on cord blood lymphocytes. A subset of CD4⁺/CD45R0⁺ T lymphocytes from germinal center lymph nodes expresses the CD57 antigen (2, 3). Data report that the CD57 molecule is involved in cell-cell interactions. L-selectin (CD62L) and P-selectin (CD62P) molecules may be possible ligands for CD57 (1, 5). The NC1 monoclonal antibody was assigned to the CD57 cluster at the 5th HLDA Workshop on Human Leucocyte Differentiation Antigen in Boston, USA in 1993 (6).

REAGENT

IOTest CD57-Pacific Blue
Conjugated antibody
PN A74779 - 0.5 mL - Liquid - 10 µL/test*

Clone	NC1
Isotype	IgM, Mouse
Immunogen	Cells from quail ciliary ganglia
Hybridoma Source	SP2/0 x balb/c Ascites fluid
Purification	Affinity chromatography
Conjugation	Pacific Blue (Pacific Blue)
Molar Ratio	Pacific Blue / Ig : 18 - 23
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. 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.
2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze.

REAGENT PREPARATION

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. Lanier, L.L., Hemperly, J.J., "CD56 and CD57 cluster workshop report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1398-1400.
2. Funaro, A., Cafforio, P., Horenstein, E., Magrini, E., Ardeleanu, C., Geuna, M., Meneveri, R., Ginelli, E., Malavasi, F., "Human CD57, a link molecule between leucocytes and neural cells", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1435-1436.

3. Funaro, A., Malavasi, F., "CD workshop panel report", 1998, Leucocyte Typing VI, White cell Differentiation Antigens, Kishimoto, T., et al, Eds., Garland Publishing, Inc., 274-276.
4. Arber, D.A., Weiss, L.M., "CD57: A review", 1995, Appl. Immunohistochem., 3, 3, 137-152.
5. Needham, L.K., Schnaar, R.L., "The HNK-1 reactive sulfoglucuronyl glycolipids are ligands for L-selectin and P-selectin but not E-selectin, 1992, Proc. Natl. Acad. Sci. USA, 90, 1359-1363.
6. Ritz, J., Trinchieri, G., Lanier, L.L., "NK-cell antigens: section report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1367-1372.

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(*): 10 µL is the quantity of product sufficient to stain
5 x 10⁵ cells in a standard immunofluorescence assay