

**CYTO-STAT®/
COULTER CLONE®
B3-RD1**

REF 6604428 - 50 tests

PN 4236120-D



ANALYTE SPECIFIC REAGENT

Analytical and performance characteristics are not established.

ANTIBODY SPECIFICITY

B3 (CD22) is a B lineage restricted antigen that occurs in the cytoplasm of early B cell precursors and pre-B cells and on the cell surface of resting and activated B cells.¹⁻³ This 140 kD antigen is expressed on approximately 5% of peripheral blood mononuclear cells, 75% of B cells isolated from peripheral blood and lymphoid tissue, and 50% of bone marrow B cells.² The CD22 antigen is not detected on T cell and myeloid cells. It is expressed on less than 1% of bone marrow mononuclear cell and 50% of EB virus transformed lymphoblastoid B cell lines. CD22 demonstrates heterogeneous expression on resting peripheral blood B lymphocytes. The antigen is lost following activation of B cells with a variety of mitogens.¹⁻³ The CD22 molecule is a member of the Ig superfamily which appears to regulate signal transduction through the B cell receptor.⁴ It is a receptor for certain sialic acid containing glycoproteins.⁴

REAGENT

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CLONE: HD239 (B3), a switch variant of HD39, was derived from the hybridization of mouse SP2/0 cells with spleen cells from BALB/c mice immunized with leukemic cells from a patient with hairy cell leukemia.⁵

Ig CHAIN: Mouse IgG2b heavy chain and kappa light chains

SOURCE: Ascites Fluid

PURIFICATION: Affinity chromatography

CONJUGATION: B3-RD1 (Phycoerythrin)

MOLAR RATIO: RD1/protein 0.5-1.5

FLUORESCENCE:

RD1 (Orange) Excites at 486-580 nm
Emits at 568-590 nm

REAGENT CONTENTS

The concentration of nonantibody reagents is 0.2% BSA, 0.01 M potassium phosphate, 0.15 M NaCl, 0.1% Na₂S₂O₃ and stabilizers.

STATEMENT OF WARNINGS

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 handled as if capable of transmitting infection 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 reagent beyond the expiration date on the vial label.
5. Minimize exposure of reagent to light during storage or incubation.
6. Avoid microbial contamination of reagents or erroneous results may occur.
7. Use Good Laboratory Practices (GLP) when handling this reagent.
8. Harmful if swallowed.
9. After contact with skin, wash immediately with plenty of water.

STORAGE CONDITIONS AND STABILITY

This reagent is stable to the expiration date on the vial label when stored at 2-8°C. Do not freeze. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this reagent (clear colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

No preparation is necessary. This CYTO-STAT/COULTER CLONE reagent is used directly from the vial.

Bring reagent to 20-25°C prior to use.

USAGE

This reagent is for use with standard flow cytometry methodologies.

The use of B3-RD1 in this reagent is not intended for enumeration of CD22 cells in clinical diagnostic applications.

SELECTED RESEARCH REFERENCES

1. Dorken B, Moldenhauer G, Pezzutto A, Schwartz R, Feller A, Kiesel S, Nadler LM. 1986. HD39 (B3), a B lineage-restricted antigen whose cell surface expression is limited to resting and activated human B lymphocytes. *J Immunol* 136:4470.
2. Moldenhauer G, Dorken B, Schwartz R, Pezzutto A, Hammerling GJ. 1986. Characterization of a human B lymphocyte specific antigen defined by monoclonal antibody HD6 and HD39. In: *Leukocyte Typing II, Vol. 2 (Proc. 2nd Int. Workshop, Boston, 1984)*. Reinherz EL, Haynes BF, Nadler LM, Bernstein JD, eds.
3. Ling NR, MacLennan ICM, Mason DY. 1987. B-Cell antigens: new and previously defined clusters. In: *Leukocyte Typing III (Proc. 3rd Int. Workshop, Oxford, 1986)*. McMichael AJ, ed. Oxford University Press, p. 303.
4. Tedder TF, Tuscano J, Sato S and Kehrl JH. 1997. CD22, a B lymphocyte-specific adhesion molecule that regulates antigen receptor signaling. *Annu. Rev. Immunol.* 15:481-504.

5. Dorken B, Moldenhauer G. 1987. Phenotypic analysis of the Third International Workshop B-cell panel. In: *Leukocyte Typing III (Proc. 3rd Int. Workshop, Oxford, 1986)*. McMichael AJ, ed. Oxford University Press, p. 369.

PRODUCT AVAILABILITY


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RD1 is licensed under patent 4,520,110.

For additional information or if damaged product is received in the USA, call 800-526-7694. Outside the USA, contact your local Beckman Coulter Representative.

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