

**CYTO-STAT®/
COULTER CLONE®
CD38-RD1**

REF 6604928 - 50 tests

PN 4236263-D



ANALYTE SPECIFIC REAGENT

Analytical and performance characteristics are not established.

ANTIBODY SPECIFICITY

CD38 is a 45 kD cell surface molecule found on a variety of hematopoietic cells.¹ It is expressed on very early B cells, lost during maturation and re-expressed upon terminal differentiation to plasma cells.² This molecule is also strongly expressed on thymocytes,³ but is found at low density on unstimulated peripheral blood T cells. Activation of T cells results in renewed high density expression.⁴ In bone marrow, CD38 is found on 99% of CD34+ cells, the remaining CD34+ cells being the most immature of the progenitor cells.⁵ This molecule can also be found on natural killer cells.⁶

REAGENT

CYTO-STAT/COULTER CLONE CD38-RD1
PN 6604928 - 50 tests (0.5 mL)

CLONE: LS198-4-3 was derived from the hybridization of murine SP2/0 myeloma cells with spleen cells from BALB/c mice immunized with the human T cell line HuT 78.

Ig CHAIN: Mouse IgG1 heavy chain and kappa light chains

SOURCE: Ascites fluid

PURIFICATION: Affinity chromatography

CONJUGATION: CD38-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% NaN₃ 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 reagent 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. 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 CD38-RD1 in this reagent is not intended for enumeration of CD38 cells in clinical diagnostic applications.

SELECTED RESEARCH REFERENCES

1. Knapp W, Dorken B, Gilks WR, Rieber EP, Schmidt RE, Stein H and von dem Borne AEGK, eds. 1989. B-cell antigens: CD38. Leukocyte Typing IV. Oxford, UK:Oxford University Press. p. 83.
2. Terstappen LWMM, Johnsen S, Segers-Nolten IMJ and Loken MR. 1990. Identification and characterization of plasma cells in normal human bone marrow by high-resolution flow cytometry. Blood 76:1739.
3. Terstappen LWMM, Huang S and Picker LFJ. 1992. Flow cytometric assessment of human T-cell differentiation in thymus and bone marrow. Blood 79:666.
4. Holter W, Majdic O, Liska K, Stockinger H and Knapp W. 1985. Kinetics of activation antigen expression by in vitro stimulated human T lymphocytes. Cellular Immunology. 90:322.
5. Terstappen LWMM, Huang S, Safford M, Lansdorp PM and Loken MR. 1991. Sequential generations of hematopoietic colonies derived from single nonlineage-committed CD34+CD38- progenitor cells. Blood 77:1218.
6. Nagler A, Lanier LL, Cwirla S and Phillips JH. 1990. Comparative studies of human FcRIII-positive and negative natural killer cells. J of Immunology 143:3183.

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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