

MONOCLONAL ANTIBODY CD32

Cat. No.	Form	Quantity	Presentation
0417	Purified	0.2 mg	Freeze-dried
1935	Phycoerythrin	100 tests	Liquid 2 ml

Clone 2E1

Isotype IgG2a (mouse)

Immunogen K 562 cells (mouse erythroleukemia cell line)

Hybridoma Myeloma NS1 x Balb/c spleen cells

Specificity
 The CD32 molecule (Fc γ RII) represents a 40 kDa low affinity receptor for IgG with affinity for complexed or aggregated IgG (1).
 This class of Fc γ R consists of at least six isoforms originating from three different genes (Fc γ RIIA, B and C) and alternative splicing. These receptors mediate a host of functions including endocytosis, stimulation of secretion, cytotoxic responses and immunomodulation (2).
 Fc γ RII is expressed on every Fc γ R bearing cell with the exception of natural killer cells.
 Expression of the Fc γ RIIA gene is found on monocytes, neutrophils and platelets and at a low level on B lymphocytes (3).
 The Fc γ RIIB comprises three isoforms: Fc γ RIIb1, IIB2 and IIB3. The Fc γ RIIb1 and IIB2 transcripts were found to be expressed on B lymphocytes (3).
 In peripheral blood 2E1 antibody reacts with monocytes, granulocytes, B cells and platelets (4). It stains 10% of bone marrow cells (4).
 On Fc γ RII transfectants, 2E1 bounds well to Fc γ RIIA expressing cells but is marginally reactive with cells expressing Fc γ RIIb (1).

Applications
 Identification or cell sorting of the following differentiated cells: myelocytes, polynuclear cells, monoblasts, monocytes, macrophages, megakaryocytes, platelets, and B cells.
 Studies have shown that anti-CD32 antibodies can be useful in the typing of leukemia cells.

Buffer
 Freeze-dried forms: 1 mg/ml bovine serum albumin in phosphate buffered saline.
 Liquid forms: 2 mg/ml bovine serum albumin in phosphate buffered saline containing 0.1% sodium azide.

September 18, 1995

MA003

FOR RESEARCH USE ONLY - NOT FOR USE IN DIAGNOSTIC PROCEDURES



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Reconstitution and Storage

The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 ml of distilled water. No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date. Aliquotting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C

The conjugated forms should not be frozen and should be stored in the dark at 2 - 8°C.

Recommended Procedures

Fluorescent microscopy or flow cytometry:

Liquid form: 20 µl/5x10⁵ cells/test or 100 µl whole blood

Freeze-dried form: 2 µg/5x10⁵ cells/test

Immunohistochemistry:

Suggested form: freeze-dried

Working dilution: 1:25 to 1:50

References

This antibody is only suitable on frozen sections or cell smears.

This 2E1 antibody has been assigned to the CDw32 cluster of differentiation at the 4th International Workshop on Human Leukocyte Differentiation Antigens in Vienna (1989).

1) van de Winkel, J.G.J. and Anderson, C.L., "CD32 cluster workshop report", 1995, in Leucocyte Typing V, in Schlossman, S.F., et al Eds, Oxford University Press, pp 823-826.

2) van de Winkel, J.G.J. and Capel, P.J.A., " Human IgG Fc receptor heterogeneity: molecular aspects and clinical implications ", 1993, Immunol. Today, **14** (5), 215-221.

3) van den Herik-Oudijk, I.E., Westerdaal, N.A.C., Henriquez, N.V., Capel, P.J.A., Van de Winkel, J.G.J. " Functional Analysis of human FcγRII (CD32) isoforms expression in B lymphocytes ", 1994, J. Immunol., **152** (2), 574-585.

4) Farace, F., Mitjavila, M., Dokhelar, M.C., Wiells, J., Betieb, A., Finale, Y., Kreffer, N., Breton-Gorius, Vainchenker, W., Tursz, T. " New hematopoietic differentiation antigens detected by anti-K562 monoclonal antibodies ", 1988, Cancer Res, **48**(20), 5759-5765.