

Monoclonal Antibody CD20

PN IM1342 – Purified – Freeze-dried – 0.2 mg – Clone B9E9 (HRC20)

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD20 molecule is a nonglycosylated membrane-embedded protein which exhibits a hydrophobic region spanning four times the membrane. The long N- and C-terminal ends of the molecule are located within the cytoplasm. The level of phosphorylation of the cytoplasmic tail is responsible for the heterogeneity of the molecular weight ranging from 33 to 37 kDa (1). CD20 may also exist on the cell surface as a homo-oligomeric complex forming with other molecules a multimeric receptor complex (2).

The expression of CD20 is restricted to B-lineage cells. Its expression occurs early in pre-B lymphocyte development, persists in B-lymphocyte ontogeny and is lost upon ultimate plasma cell differentiation (2, 3). The CD20 molecule is present on all B lymphocytes whatever the hematopoietic tissue where they are found (peripheral blood, lymph nodes, spleen, tonsil, or bone marrow). The CD20 antigen may be weakly expressed on a subset of resting T lymphocytes (4, 5). However, CD20 is not expressed on other leucocyte subsets including NK cells, monocytes and granulocytes.

The B9E9 (HRC20) clone was assigned to CD20 during the 5th HLDA Workshop on Human Leucocyte Differentiation Antigens, held in Boston, USA, in 1993 (WS Code: CD20.12, Section B) (2).

REAGENT

Monoclonal Antibody CD20
PN IM1342 – Purified – Freeze-dried

CLONE B9E9 (HRC20)
ISOTYPE IgG2a
IMMUNOGEN B cells
HYBRIDOMA P3-X63-Ag.8.653 x Balb/c
SPECIES Mouse
SOURCE ascites fluid
PURIFICATION Protein A affinity chromatography

REAGENT CONTENTS

1 mg/ml bovine serum albumin in phosphate buffered saline.

STATEMENT OF WARNINGS

1. 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.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reagent or erroneous results may occur.
5. Use general good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date on the vial label when stored at 2 – 8°C. The reconstituted form may be stored at -20°C until the expiration date. Aliquoting 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. Minimize exposure to light and warmth.

REAGENT PREPARATION

Reconstitute with 1 mL of distilled water. No preservative has been added.

PROCEDURE

Flow cytometry

SELECTED RESEARCH REFERENCES

1. Tedder, T.F., Engel, P., "CD20 : a regulator of cell-cycle progression of B lymphocytes", 1994, *Immunol. Today*, 9, 15, 450-454.
2. Zhou, L.J., Tedder, T.F., "CD20 Workshop panel report", 1995, *Leucocyte Typing V, White Cell Differentiation Antigens*. Schlossman, S.F., et al., Eds., Oxford University Press, 511-514.
3. Uckun, F.M., "Regulation of human B-cell ontogeny", 1990, *Blood*, 10, 76, 1908-1923.
4. Chang, K.L., Arber, D.A., Weiss, L.M., "CD20 : a review", 1996, *Appl. Immunohistochem.*, 1, 4, 1-15.
5. Hultin, L.E., Hausner, M.A., Hultin, P.M., Giorgi, J.V., "CD20 (pan-B cell) antigen is expressed at a low level on a subpopulation of human T lymphocytes", 1993, *Cytometry*, 2, 14, 196-204.

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