



CELL LAB Rat Anti-Mouse CD23 (FcεRII)

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732078	Purified (UNLB) Antibody	0.5 mg
732079	Fluorescein (FITC) Conjugate	0.5 mg
732080	Biotin (BIOT) Conjugate	0.5 mg
732081	Phycoerythrin (PE) Conjugate	0.1 mg
733277	Phycoerythrin (PE) Conjugate	0.2 mg
733278	Allophycocyanin (APC) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 2G8
Isotype: Rat IgG2 α k
Specificity: CD23 low affinity IgE Fc receptor

The CD23 antigen is the low affinity IgE Fc receptor, which is a 49 kDa protein with 38 and 28 kDa fragments.¹ It is expressed on most mature, conventional B cells (but not on peritoneal CD5⁺ B cells), and can also be found on the surface of T cells, macrophages and platelets.¹⁻⁶ It is distinct from the high affinity IgE receptors found on basophils and mast cells, which mediate allergic reactions. The low affinity receptors are thought to play a role in isotype specific immunoregulation.³ The regulation of CD23 surface expression appears to be integral with the complex IgE system, which involves interactions of cells, cytokines, antibodies and regulatory factors.²⁻⁶ CD23 has been described as a "membrane bound cytokine", in that the soluble cleavage products of CD23 are themselves able to act as cytokines *in vitro*.⁶

APPLICATIONS

- Identification and enumeration of CD23⁺ cells by flow cytometry^{2,5}
- Differentiation of B cell subpopulations by cell sorting
- Immunoprecipitation of CD23¹

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using immunofluorescence staining and flow cytometry.

WORKING DILUTIONS

Flow Cytometry:

FITC conjugate	$\leq 1 \mu\text{g}/10^6$ cells
BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
PE conjugate	$\leq 0.1 \mu\text{g}/10^6$ cells
APC conjugate	$\leq 0.1 \mu\text{g}/10^6$ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.

- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The phycoerythrin (PE) conjugates are supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent.
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 0.1 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

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. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic 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, immediately wash excessively with water.

TRADEMARKS

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For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Rao M, Lee WT and Conrad DH. 1987. Characterization of a monoclonal antibody directed against the murine B lymphocyte receptor for IgE. *J Immunol*, 138:1845-1851.
2. Cong YZ, Rabin E and Wortis HH. 1991. Treatment of murine CD5- B cells with anti-Ig, but not LPS, induces surface CD5: two B-cell activation pathways. *Int Immunol*, 3:467-476.
3. Conrad DH. 1991. Murine CD23/Fc epsilon RII. Structure and function and comparison with the human counterpart. *Monogr Allergy*, 29:9-27.
4. Vercelli D and Geha RS. 1989. The IgE system. *Ann Allergy*, 63:4-11.
5. Yu P, Kosco-Vilbois M, Richards M, Kohler G and Lamers MC. 1994. Negative feedback regulation of IgE synthesis by murine CD23. *Nature*, 369:753-756.
6. Bonnefoy JY, Lecoanet-Henchoz S, Aubry JP, Gauchat JF and Graber P. 1995. CD23 and B-cell activation. *Curr Opin Immunol*, 7:355-359.



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