



CELL LAB Rat Anti-Mouse CD71

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732193	Purified (UNLB) Antibody	0.5 mg
732194	Fluorescein (FITC) Conjugate	0.5 mg
732195	Biotin (BIOT) Conjugate	0.5 mg
732196	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: R17217
Isotype: Rat IgG2 α κ
Specificity: CD71/transferrin receptor, Mr 180-190 kDa (90-95 kDa under reducing conditions)

CD71, a type II transmembrane glycoprotein expressed on the cell surface as a homodimer, is the transferrin receptor. It is expressed at low levels on resting B and T lymphocytes but is upregulated during responses to antigens and mitogens, presumably reflecting the iron dependence of proliferation. Its expression declines with maturation and differentiation. CD71 plays a critical role in cell proliferation by controlling the supply of iron, which is essential for many metabolic pathways, through the binding and endocytosis of transferrin, the major iron-carrying protein. It may also be involved in signal transduction via its association with the T cell receptor ζ chain. Monoclonal antibody R17217 inhibits cell proliferation *in vitro*.^{1,2}

APPLICATIONS

- Flow cytometry
- *In vitro* inhibition of cell proliferation¹

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using 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	$\leq 0.2 \mu\text{g}/10^6$ 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) conjugate is supplied as 0.1 mg in 1.0 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. Trowbridge IS, Collawn JF and Hopkins CR. 1993. Signal-dependent membrane protein trafficking in the endocytic pathway. *Annu Rev Cell Biol*, 9:129-161.
2. Kemp JD, Thorson JA, McAlmont TH, Horowitz M, Cowdery JS and Ballas ZK. 1987. Role of the transferrin receptor in lymphocyte growth: a rat IgG monoclonal antibody against the murine transferrin receptor produces highly selective inhibition of T and B cell activation protocols. *J Immunol*, 138:2422-2426.



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Beckman Coulter, Inc.
4300 N. Harbor Blvd.
Fullerton, CA 92835
www.beckmancoulter.com

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