



CELL LAB Rat Anti-Mouse BP-1 (Ly-51/6C3)

Cat. No.	Form	Quantity
732235	Purified (UNLB) Antibody	0.5 mg
732236	Fluorescein (FITC) Conjugate	0.5 mg
732237	Biotin (BIOT) Conjugate	0.5 mg
732238	Phycoerythrin (PE) Conjugate	0.1 mg
731904	Phycoerythrin (PE) Conjugate	0.2 mg

For Laboratory Use Only

DESCRIPTION

Clone: FG35.4
Isotype: Rat IgG1 κ
Specificity: BP-1/Ly-51/6C3 antigen, (aminopeptidase A, E.C.3.4.11.7, glutamylaminopeptidase)

BP-1, also known as Ly-51/6C3 antigen, is a type II homodimeric transmembrane glycoprotein formed by two disulfide-linked chains of 140 kDa.^{1,2} Originally identified on the surface of pre-B cell lymphomas^{1,3} the cDNA encoding BP-1/Ly-51/6C3 has been cloned and found to represent aminopeptidase A.^{4,5} It is expressed at high levels on bone marrow stromal cell lines which support *in vitro* B lymphopoiesis and on a wide variety of mouse tissues known to possess aminopeptidase activity.⁶⁻⁸ Subsets of normal bone marrow pre-B and B cells express low levels of BP-1/Ly-51/6C3, which is rapidly upregulated on pre-B cells in the presence of IL-7.^{9,10} The BP-1/6C3 marker is commonly used to identify B cells in different stages of development.¹¹

APPLICATIONS

- Flow cytometry
- Immunoprecipitation

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) 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.

- 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. Cooper MD, Mulvaney D, Coutinho A and Cazenave PA. 1986. A novel cell surface molecule on early B-lineage cells. *Nature*, 321:616-618.
2. Wu Q, Tidmarsh GF, Welch PA, Pierce JH, Weissman IL and Cooper MD. 1989. The early B lineage antigen BP-1 and the transformation-associated antigen 6C3 are on the same molecule. *J Immunol*, 143:3303-3308.
3. Pillemer E, Whitlock C and Weissman IL. 1984. Transformation-associated proteins in murine B-cell lymphomas that are distinct from Abelson virus gene products. *Proc Natl Acad Sci USA*, 81:4434-4438.
4. Wu Q, Lahti JM, Air GM, Burrows PD and Cooper MD. 1990. Molecular cloning of the murine BP-1/6C3 antigen: a member of the zinc-dependent metallopeptidase family. *Proc Natl Acad Sci USA*, 87:993-997.
5. Wu Q, Li L, Cooper MD, Pierres M and Gorvel JP. 1991. Aminopeptidase A activity of the murine B-lymphocyte differentiation antigen BP-1/6C3. *Proc Natl Acad Sci USA*, 88:676-680.
6. Whitlock CA, Tidmarsh GF, Muller-Sieburg C and Weissman IL. 1987. Bone marrow stromal cell lines with lymphopoietic activity express high levels of a pre-B neoplasia-associated molecule. *Cell*, 48:1009-1021.
7. Adkins B, Tidmarsh GF and Weissman IL. 1988. Normal thymic cortical epithelial cells developmentally regulate the expression of a B-lineage transformation-associated antigen. *Immunogenetics*, 27:180-186.
8. Li L, Wu Q, Wang J, Bucy RP and Cooper MD. 1993. Widespread tissue distribution of aminopeptidase A, an evolutionarily conserved ectoenzyme recognized by the BP-1 antibody. *Tissue Antigens*, 42:488-496.
9. Sherwood PJ and Weissman IL. 1990. The growth factor IL-7 induces expression of a transformation-associated antigen in normal pre-B cells. *Int Immunol*, 2:399-406.
10. Welch PA, Burrows PD, Namen A, Gillis S and Cooper MD. 1990. Bone marrow stromal cells and interleukin-7 induce coordinate expression of the BP-1/6C3 antigen and pre-B cell growth. *Int Immunol*, 2:697-705.
11. Hardy RR, Carmack CE, Shinton SA, Kemp JD and Hayakawa K. 1991. Resolution and characterization of pro-B and pre-pro-B cell stages in normal mouse bone marrow. *J Exp Med*, 173:1213-1225.



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