



CELL LAB Mouse Anti-Mouse CD45.2/Ly5.2

| Cat. No. | Form | Quantity |
|----------|------------------------------|----------|
| 732265 | Purified (UNLB) Antibody | 0.5 mg |
| 732266 | Fluorescein (FITC) Conjugate | 0.5 mg |
| 732267 | Biotin (BIOT) Conjugate | 0.5 mg |

For Laboratory Use Only

DESCRIPTION

Clone: 104-2
Isotype: IgG2 κ
Specificity: Mouse CD45.2 (Leukocyte Common Antigen)

The CD45 antigen is an essential regulator of leukocyte activation and development, and is now known to be a protein tyrosine phosphatase^{1,2} (for example, CD45 is able to dephosphorylate the Src family of protein kinases). This activity is now known to be required for signal transduction induced by T and B cell antigen receptor engagement, cytokine signaling and Fc receptor stimulation.^{1,2} The functional state of CD45 also has a pronounced effect on lymphocyte development. CD45 exists in multiple forms, such as the restricted variants (CD45R) and as allelic forms CD45.1/Ly5.1 and CD45.2/Ly5.2. The specificity of antibodies to CD45.1 and CD45.2 has been exploited in studies where resolution of donor and recipient cells is essential, such as in gene therapy³ or bone marrow transplantation.⁴ Monoclonal antibody (MAb) 104-2 recognizes CD45 (Leukocyte Common Antigen) on all leukocytes of mouse strains expressing the CD45.2 allotype (for example, A, AKR, BALB/c, CBA/Ca, CBA/J, C3H/He, C57BL, C57BR, C57L, C58, DBA/1, DBA/2, NZB, SWR, 129).

APPLICATIONS

- Flow cytometry and fluorescence microscopy³⁻⁴
- Markers for origin of donor and host cells³⁻⁴
- 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

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.
- 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. Okumura M and Thomas ML. 1995. Regulation of immune function by protein tyrosine phosphatases. *Current Opin Immunol*, 7:312-319.
2. Thomas ML. 1995. Positive and negative regulation of leukocyte activation by protein tyrosine phosphatases. *Seminars in Immunol*, 7:279-288.
3. Mardiney M and Malech HL. 1996. Enhanced engraftment of hematopoietic progenitor cells in mice treated with granulocyte colony stimulating factor before low-dose irradiation: implications for gene therapy. *Blood*, 87:4049-4056.
4. Vallera DA, et al. 1994. The role of host T cell subsets in bone marrow rejection directed to isolated major histocompatibility complex class I versus class II differences of bm1 and bm12 mutant mice. *Transplantation*, 57:249-256.



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Fullerton, CA 92835
www.beckmancoulter.com

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