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Technical Data Sheet

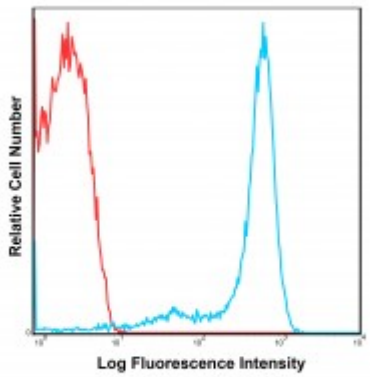
Anti-Mouse CD45.2 FITC

Catalogue Number : 07532-50

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

Product Information

Clone: 104
Format/Conjugate: FITC
Concentration: 0.5 mg/mL
Reactivity: Mouse
Laser: Blue (488nm)
Peak Emission: 520nm
Peak Excitation: 494nm
Filter: 530/30
Brightness (1=dim,5=brightest): 3
Isotype: Mouse IgG2a, kappa
Formulation: Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, ph7.2.
Storage: Product should be kept at 2-8°C and protected from prolonged exposure to light.
Applications: FC



C57Bl/6 bone marrow cells were stained with FITC 104 with relevant isotype control in Red.

Description

The 104 monoclonal antibody specifically reacts with the mouse CD45 molecule, the Leukocyte Common Antigen (LCA) which occurs in the alloantigen CD45.2-expressing mouse strains (C57BL/6, CBA, 129, A, AKR, C58, DBA/1, DBA/2, BALB/c, and C3H/He). The 104 monoclonal antibody does not react with the leukocytes of the CD45.1-expressing mouse strains (DA, SJL/J, RIII, and STS/A).

The CD45 molecule is a member of the Protein Tyrosine Phosphatase (PTP) family, because its intracellular region contains two PTP domains. The extracellular region's variability is caused by different levels of glycosylation, and the splicing of the 4, 5, and 6 exons.

The isoforms found in the mouse strains depend on the activation state, maturation stage and cell type, and are very important in B and T lymphocytes antigen receptor signal transduction. The 104 antibody inhibits some of the B lymphocytes responses, reduces the serum IgG levels, and influences the autoimmune renal pathology.

Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤0.25 ug per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

References

1.Shen, F. W., Tung, J. S., ; Boyse, E. A. (1986). Further definition of the Ly-5 system.;Immunogenetics,;24(3), 146-149.

2. Shen, F.W. (1981) Monoclonal antibodies to mouse lymphocyte differentiation alloantigens. Monoclonal Antibodies and T-Cell Hybridomas: Perspectives and Technical Advances. G.J. Hämmerling, U. Hämmerling, and J.F. Kearney, editors. Elsevier/North-Holland, Amsterdam. pp. 25;31.

3. Yakura, H., Shen, F. W., Bourcet, E., ; Boyse, E. A. (1983). On the function of Ly-5 in the regulation of antigen-driven B cell differentiation. Comparison and contrast with Lyb-2.;The Journal of experimental medicine,;157(4), 1077-1088.

4. Suzuki, K., Oida, T., Hamada, H., Hitotsumatsu, O., Watanabe, M., Hibi, T., ... ; Ishikawa, H. (2000). Gut cryptopatches: direct evidence of extrathymic

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316