

Anti-Mouse CD19 Biotin

Catalog Number :11212-30

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

Product Information

Clone: 1D3

Format/Conjugate: Biotin

Concentration: 0.5 mg/mL

Reactivity: Mouse

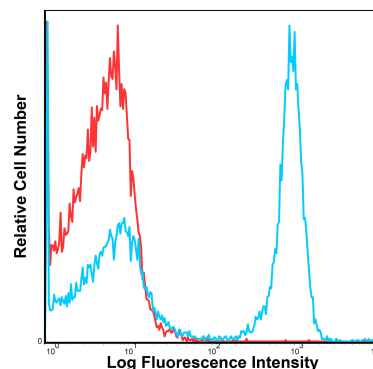
Laser: Not Applicable

Peak Emission: Not Applicable

Peak Excitation: Not Applicable

Filter: Not Applicable

Brightness (1=dim,5=brightest): Not Applicable



C57Bl/6 splenocytes were stained with Biotin 1D3 followed by Streptavidin PE with relevant isotype control in Red.

Isotype: Rat IgG2a, kappa

Formulation: Phosphate-buffered aqueous solution, $\leq 0.09\%$ 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

Description

The 1D3 monoclonal antibody specifically reacts with mouse CD19, a 95 kDa transmembrane glycoprotein, a member of the Ig superfamily and a B cell-lineage differentiation antigen expressed by all the B lymphocyte development stages, except for the terminally differentiated plasma cells.

CD19 associates with CD21, CD81 and MHC class II to form a multi-molecular complex that initiates the mature B lymphocyte activation by interaction with the B-cell receptors. CD 19 enhances the B cell proliferation, development and activation, and the maturation of memory B cells. In CD19-deficient mice, the generation and maturation of B lymphocytes in the bone marrow and periphery are affected.

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 ≤ 0.125 ug per million cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

References

1.Cherukuri, A., Cheng, P. C., Pierce, S. K. (2001). The role of the CD19/CD21 complex in B cell processing and presentation of complement-tagged

antigens. The Journal of Immunology, 167(1), 163-172.

2. Krop, I., De Fougerolles, A. R., Hardy, R. R., Allison, M., Schlissel, M. S., Fearon, D. T. (1996). Self-renewal of B-1 lymphocytes is dependent on CD19. European journal of immunology, 26(1), 238-242.
3. Engel, P., Zhou, L. J., Ord, D. C., Sato, S., Koller, B., Tedder, T. F. (1995). Abnormal B lymphocyte development, activation, and differentiation in mice that lack or overexpress the CD19 signal transduction molecule. Immunity, 3(1), 39-50.
4. Sato, S., Jansen, P. J., Tedder, T. F. (1997). CD19 and CD22 expression reciprocally regulates tyrosine phosphorylation of Vav protein during B lymphocyte signaling. Proceedings of the National Academy of Sciences, 94(24), 13158-13162.