

## Anti-Mouse CD19 Purified

Catalogue Number : 11212-20

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

### Product Information

**Clone:** 1D3

**Format/Conjugate:** Purified

**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

**Isotype:** Rat 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, FA, IHC, IP

### 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. 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.