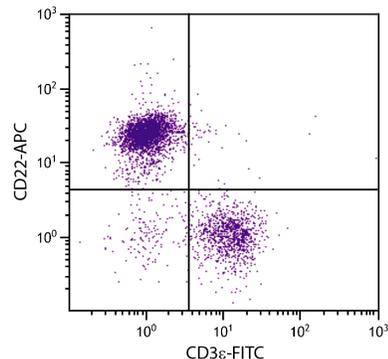




Rat Anti-Mouse CD22

Cat. No.	Format	Size
1580-01	Purified (UNLB)	0.5 mg
1580-02	Fluorescein (FITC)	0.5 mg
1580-08	Biotin (BIOT)	0.5 mg
1580-09	R-phycoerythrin (PE)	0.1 mg
1580-11	Allophycocyanin (APC)	0.1 mg
1580-13	Spectral Red® (SPRD)	0.1 mg
1580-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD22-APC (SB Cat. No. 1580-11) and Rat Anti-Mouse CD3ε-FITC (SB Cat. No. 1535-02).

Overview

Clone	2D6 (NIM-R6)
Isotype	Rat (LOU) IgG _{1κ}
Immunogen	Splenic lymphocyte plasma membranes from CBA x C57 F1 mice
Specificity	Mouse CD22; Mr 150 kDa
Alternate Name(s)	Lyb-8, Leu-14, BL-CAM

Description

CD22, also known as Lyb-8, is a heterodimeric transmembrane glycoprotein and a member of a structurally related group of immunoglobulin (Ig) superfamily domain-containing proteins called the sialoadhesin family. It is detected in the cytoplasm early in B cell development (late pro-B cell stage), appears on the cell surface concomitant with IgD, and is found on most IgM⁺IgD⁺ mature B lymphocytes. Expression is lost with terminal differentiation of B cells and is absent on plasma cells. Activation of B cells via cross-linking of surface Ig increases CD22 expression. CD22 associates with the B cell receptor (BCR) complex and mediates intercellular adhesion. Its intracellular domain is phosphorylated after antigen receptor cross-linking and is involved in negative regulation of B cell activation.

Applications

FC – Quality tested ^{1,6-8}
 IHC-FS – Reported in literature ⁴
 IHC-PS – Reported in literature ³
 ICC – Reported in literature ⁵
 IP – Reported in literature ^{1,2}
 Activ – Reported in literature ⁹

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	≤ 1 μg/10 ⁶ cells
	PE, APC, and SPRD conjugates	≤ 0.2 μg/10 ⁶ cells
For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL		

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red® (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

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3. van Holten J, Reedquist K, Sattonet-Roche P, Smeets TJ, Plater-Zyberk C, Vervoordeldonk MJ, et al. Treatment with recombinant interferon-β reduces inflammation and slows cartilage destruction in the collagen-induced arthritis model of rheumatoid arthritis. *Arthritis Res Ther.* 2004;6:R239-49. (IHC-PS)
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5. Ramya TN, Weerapana E, Liao L, Zeng Y, Tateno H, Liao L, et al. In situ trans ligands of CD22 identified by glycan-protein photocross-linking-enabled proteomics. *Mol Cell Proteomics.* 2010;9:1339-51. (ICC)
6. Walker JA, Smith KG. Dependence of surface monoclonal antibody binding on dynamic changes in FcγRIIb expression. *Immunology.* 2008;124:412-8. (FC)
7. O'Reilly MK, Tian H, Paulson JC. CD22 is a recycling receptor that can shuttle cargo between the cell surface and endosomal compartments of B cells. *J Immunol.* 2011;186:1554-63. (FC)
8. Zhu Z, Li R, Li H, Zhou T, Davis RS. FCRL5 exerts binary and compartment-specific influence on innate-like B-cell receptor signaling. *Proc Natl Acad Sci USA.* 2013;110:E1282-90. (FC)
9. Chan VW, Lowell CA, DeFranco AL. Defective negative regulation of antigen receptor signaling in Lyn-deficient B lymphocytes. *Curr Biol.* 1998;8:545-53. (Activ)

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Spectral Red® is a PE/CY5 tandem conjugate.

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