

1P-175-T100

## Monoclonal Antibody to CD22 Phycoerythrin (PE) conjugated (100 tests)

Clone: S-HCL-1

**Isotype:** Mouse IgG2b

Specificity: The mouse monoclonal antibody S-HCL-1 (also known as S-HCL1) recognizes

CD22 (BL-CAM), a 130 kDa type I transmembrane glycoprotein (immunoglobulin superfamily) expressed in the cytoplasm of pro-B and pre-B lymphocytes, and on the surface of mature and activated B lymphocytes; it is lost on plasma cells,

peripheral blood T lymphocytes, granulocytes and monocytes.

HLDA IV; WS Code B48

Regulatory Status: RUO

**Immunogen:** Whole hairy cell leukemia cells and membrane preparation

Species Reactivity: Human

**Preparation:** The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum

conditions. The conjugate is purified by size-exclusion chromatography and

adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10  $\mu$ l reagent / 100  $\mu$ l of whole blood or 10 $^{\circ}$  cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD22, also known as Siglec-2 (sialic acid-binding immunoglobulin-like lectin-2) is a

transmembrane glycoprotein binding alpha2,6-linked sialic acid-bearing ligands. Intracellular domain of CD22 recruits protein tyrosine phosphatase SHP-1 through the immunoreceptor tyrosine-based inhibitory motifs (ITIMs), thus setting a treshold for B cell receptor-mediated activation. CD22 also regulates B-cell response by involvement in controlling the CD19/CD21-Src-family protein tyrosine kinase amplification pathway and CD40 signaling. CD22 exhibits hallmarks of

clathrin-mediated endocytic pathway.



## PRODUCT DATA SHEET

## References:

\*Foon KA, Todd RF 3rd: Immunologic classification of leukemia and lymphoma. Blood. 1986 Jul;68(1):1-31.

\*Reineks EZ, Osei ES, Rosenberg A, Auletta J, Meyerson HJ: CD22 expression on blastic plasmacytoid dendritic cell neoplasms and reactivity of anti-CD22 antibodies to peripheral blood dendritic cells. Cytometry B Clin Cytom. 2009 Jul;76(4):237-48

\*Huang J, Fan G, Zhong Y, Gatter K, Braziel R, Gross G, Bakke A: Diagnostic usefulness of aberrant CD22 expression in differentiating neoplastic cells of B-Cell chronic lymphoproliferative disorders from admixed benign B cells in four-color multiparameter flow cytometry. Am J Clin Pathol. 2005 Jun;123(6):826-32.

\*James SE, Greenberg PD, Jensen MC, Lin Y, Wang J, Till BG, Raubitschek AA, Forman SJ, Press OW: Antigen sensitivity of CD22-specific chimeric TCR is modulated by target epitope distance from the cell membrane. J Immunol. 2008 May 15;180(10):7028-38.

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