

PRODUCT INFORMATION

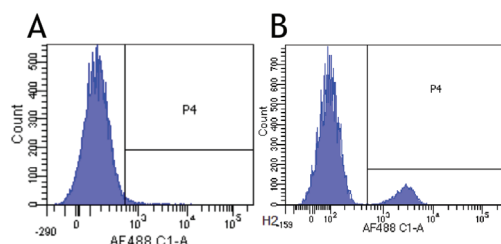


CD22 Chimeric Monoclonal Antibody (Clone hL22 (Epratuzumab)) Item No. 37158

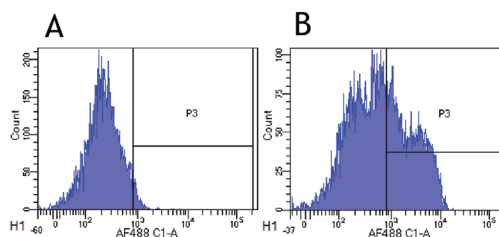
Overview and Properties

Contents:	This vial contains 200 µg of protein A-affinity purified monoclonal antibody.
Synonyms:	B Cell Receptor CD22, B-lymphocyte Cell Adhesion Molecule, BL-CAM, Sialic Acid-binding Ig-like Lectin 2, Siglec-2, T Cell Surface Antigen Leu-14
Immunogen:	Recombinant human CD22
Species Reactivity:	(+) Human, cynomolgus monkey, rhesus monkey; other species not tested
Uniprot No.:	P20273
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 0.02% ProClin™ 300
Concentration:	1 mg/ml
Clone:	hL22 (Epratuzumab)
Host:	Chimeric Monoclonal Antibody
Isotype:	IgG1κ
Applications:	Suitable for Flow cytometry (FC); block and Immunoprecipitation (IP) applications. Working concentration/dilution should be determined empirically.

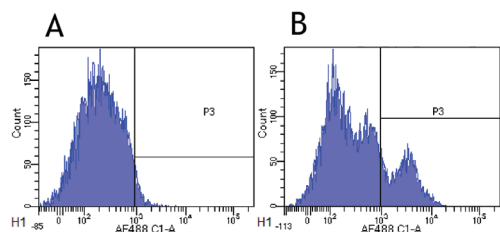
Images



Flow cytometry using CD22 Chimeric Monoclonal Antibody (Clone hL22 (Epratuzumab)). Cynomolgus monkey lymphocytes were stained with an isotype control (panel A) or the rabbit-chimeric version of CD22 Chimeric Monoclonal Antibody (Clone hL22 (Epratuzumab)) (panel B) at a concentration of 1 µg/ml for 30 minutes at RT. After washing, bound antibody was detected using an AF488-conjugated donkey anti-rabbit antibody and cells analyzed on a FACSCanto flow cytometer.



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WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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Description

CD22 is a transmembrane receptor and member of the sialic acid-binding immunoglobulin-type (Ig-type) lectin (SIGLEC) family.^{1,2} It is composed of N-terminal extracellular Ig-like variable (IgV) and Ig-like constant 2 (IgC2) domains, a membrane-spanning region, and an intracellular immunoreceptor tyrosine-based inhibitory motif (ITIM) domain. CD22 has two isoforms formed *via* alternative splicing, CD22 β , which is the full-length form and contains six IgC2 domains, and CD22 α , which lacks the third and fourth IgC2 domains. It is expressed in the cytosol of premature B cells and on the cell surface of resting and activated B lymphocytes but is not expressed in differentiated B cells.³ CD22 is an inhibitory receptor activated by binding of α 2,6-linked sialic acid-containing molecules, such as glycoproteins, which stimulates phosphorylation of tyrosine in the ITIM domain, leading to recruitment of Src homology 2 domain-containing phosphatases (SHPs), including SHP-1, spleen tyrosine kinase (Syk), LYN, and PI3K.^{1,2} Knockout of *Cd22* decreases IgG1 titers in mice immunized with OVA/alum and expression of human CD22 in *Cd22*^{-/-} mice rescues this phenotype.⁴ CD22 is overexpressed in cancer cells isolated from patients with hairy cell leukemia.³ Cayman's CD22 Chimeric Monoclonal Antibody (Clone hL22 (Epratuzumab)) was produced recombinantly from the humanized EPB-2/LL2 antibody sequence and can be used for flow cytometry (FC) and immunoprecipitation (IP) applications. The humanized EPB-2/LL2 antibody was generated by fusing human IgG1 constant domains to the antigen-binding domain of the anti-CD22 mouse monoclonal antibody, EPB-2/mLL2.^{5,6}

References

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3. Dörken, B., Moldenhauer, G., Pezzutto, A., *et al.* HD39 (B3), a B lineage-restricted antigen whose cell surface expression is limited to resting and activated human B lymphocytes. *J. Immunol.* **136**(12), 4470-4479 (1986).
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