

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Zuschläge

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PRODUCT INFORMATION



CD22 Rabbit Monoclonal Antibody

Item No. 38106

Overview and Properties

This vial contains 50 or 100 μ l of protein A-affinity purified monoclonal antibody.
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
Recombinant human CD22
(+) CD22
(+) Human
Liquid
-80°C (as supplied)
≥1 year
0.2 μm filtered solution in PBS
340
Rabbit
lgG
ELISA and immunohistochemistry (IHC-P); the recommended starting dilution is
1:5,000-1:10,000 for ELISA an 1:100-1:500 for IHC-P. Other applications were not
tested, therefore optimal working concentration/dilution should be determined
empirically.

Images



Immunohistochemical labeling of CD22 in human spleen using CD22 Rabbit Monoclonal Antibody at a dilution of 1:200.



Immunohistochemical labeling of CD22 in human tonsil using CD22 Rabbit Monoclonal Antibody at a dilution of 1:200.

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.

WARRANTY AND LIMITATION OF REMEDY Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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PRODUCT INFORMATION



Description

CD22 is a transmembrane receptor and member of the sialic acid-binding immunoglobulin-type (lg-type) lectin (SIGLEC) family.^{1,2} It is composed of N-terminal extracellular Ig-like variable (lgV) and Ig-like constant 2 (lgC2) 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 Rabbit Monoclonal Antibody can be used for ELISA and immunohistochemistry (IHC; paraffin) applications.

References

- 1. Clark, E.A. and Giltiay, N.V. CD22: A regulator of innate and adaptive B cell responses and autoimmunity. *Front. Immunol.* **9**, 2235 (2018).
- 2. Tuscano, J., Sato, S., *et al.* CD22, a B lymphocyte-specific adhesion moleculre that regulates antigen receptor signaling. *Annu. Rev. Immunol.* **15**, 481-504 (1997).
- 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).
- 4. Bednar, K.J., Shanina, E., Ballet, R., *et al.* Human CD22 inhibits murine B cell receptor activation in a human CD22 transgenic mouse model. *J. Immunol.* **199(9)**, 3116-3128 (2017).

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