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Siglec-2/CD22

Catalog # PVGS1630

Specification

Siglec-2/CD22 - Product Information

Primary Accession P20273

Species
Human

Sequence
Asp20-Arg687

Purity
> 95% as analyzed by SDS-PAGE
> 95% as analyzed by HPLC

Endotoxin Level
≤ 1 EU/ µg of protein by LAL method

Biological Activity
Immobilized Human Siglec2 at 0.5 µg/ml (100 µl/Well). Dose response curve for Biotinylated Anti-Siglec2 Ab with the EC₅₀ of 0.2 µg/ml determined by ELISA.

Expression System
Expi293

Formulation **Lyophilized from a 0.22 µm filtered solution in PBS, pH 7.4. Normally 5 % trehalose is added as protectant before lyophilization.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in distilled water up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Avoid repeated freeze-thaw cycles.

Siglec-2/CD22 - Additional Information

Gene ID 933

Other Names
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, CD22, CD22 {ECO:0000303|PubMed:1691828, ECO:0000312|HGNC:HGNC:1643}

Target Background
CD22, or cluster of differentiation-22, is a molecule belonging to the SIGLEC family of lectins. It is found on the surface of mature B cells and to a lesser extent on some immature B cells. CD22 a

member of the immunoglobulin superfamily. CD22 functions as an inhibitory receptor for B cell receptor (BCR) signaling. It is also involved in the B cell trafficking to Peyer's patches in mice.

Siglec-2/CD22 - Protein Information

Name CD22 {ECO:0000303|PubMed:1691828, ECO:0000312|HGNC:HGNC:1643}

Function
Most highly expressed siglec (sialic acid-binding immunoglobulin-like lectin) on B-cells that plays a role in various aspects of B-cell biology including differentiation, antigen presentation, and trafficking to bone marrow (PubMed:34330755, PubMed:8627166). Binds to alpha 2,6-linked sialic acid residues of surface molecules such as CD22 itself, CD45 and IgM in a cis configuration. Can also bind to ligands on other cells as an adhesion molecule in a trans configuration (PubMed:20172905). Acts as an inhibitory coreceptor on the surface of B-cells and inhibits B-cell receptor induced signaling, characterized by inhibition of the calcium mobilization and cellular activation. Mechanistically, the immunoreceptor tyrosine-based inhibitory motif domain is phosphorylated by the Src kinase LYN, which in turn leads to the recruitment of the protein tyrosine phosphatase 1/PTPN6, leading to the negative regulation of BCR signaling (PubMed:8627166). If this negative signaling from is of sufficient strength, apoptosis of the B-cell can be induced (PubMed:20516366).

Cellular Location
Cell membrane; Single-pass type I membrane protein

Tissue Location
B-lymphocytes.

Siglec-2/CD22 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Siglec-2/CD22 - Images