


Human CD22/SIGLEC-2 protein, His tag (Animal-Free)

Cat #: PRP2026

Size: 10 µg/50 µg/100 µg/1 mg

Product Information

	Product Name: Human CD22/SIGLEC-2 protein, His tag (Animal-Free)		
REF	Catalog Number: PRP2026	LOT	Lot Number:
	Purity: >95% as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: HEK 293 cells
	Shipping: The product is shipped at ambient temperature		

Background: B-cell receptor CD22 is also known as Sialic acid-binding Ig-like lectin 2 (Siglec-2), B-lymphocyte cell adhesion molecule (BL-CAM), T-cell surface antigen Leu-14, which belongs to the immunoglobulin superfamily and SIGLEC (sialic acid binding Ig-like lectin) family. The phenotype of CD22-deficient mice suggests that CD22 is primarily involved in the generation of mature B cells within the bone marrow, blood, and marginal zones of lymphoid tissues. CD22 recruits the tyrosine phosphatase Src homology 2 domain-containing phosphatase 1 (SHP-1) to immunoreceptor tyrosine-based inhibitory motifs (ITIMs) and inhibits B-cell receptor (BCR)-induced Ca²⁺ signaling on normal B cells. CD22 interacts specifically with ligands carrying alpha2-6-linked sialic acids. As an inhibitory coreceptor of the B-cell receptor (BCR), CD22 plays a critical role in establishing signalling thresholds for B-cell activation. Like other coreceptors, the ability of CD22 to modulate B-cell signalling is critically dependent upon its proximity to the BCR, and this in turn is governed by the binding of its extracellular domain to alpha2,6-linked sialic acid ligands. However, genetic studies in mice reveal that some CD22 functions are regulated by ligand binding, whereas other functions are ligand-independent and may only require expression of an intact CD22 cytoplasmic domain at the B-cell surface. CD19 regulates CD22 phosphorylation by augmenting Lyn kinase activity, while CD22 inhibits CD19 phosphorylation via SHP-1.

Sequence: Amino acid sequence derived from human CD22 (P20273-1) (Met1-Arg687) was expressed with a 6 His tag at the C-terminus.

Protein length: The recombinant human consists of 674 amino acids and predicts a molecular mass of 77.0 kDa. It migrates as an approximately 90-116 kDa band in SDS-PAGE under reducing conditions due to glycosylation.

Biological Activity: Testing in progress.

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Storage Instructions: Lyophilized Human CD22 protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2 -7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human CD22 protein in sterile ddH₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



Note: The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.