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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.

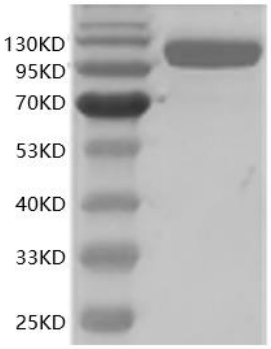
Biological Activity: Testing in progress.

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 ddH_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

	Fig. SDS-PAGE analysis of Human CD22 protein.

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