Recombinant Human CD22 Protein (Trp176-Arg687), His-tagged, Biotinylated

Cat. No. CD22-532H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD22 Protein (Q32M46) (Trp176-Arg687) was produced by Baculovirus-Insect Cells expression system. This protein was fused with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro.
Species	Human
Source	Insect Cells
ProteinLength	Trp176-Arg687
Description	CD22 is a member of the immunoglobulin superfamily, SIGLEC family of lectins. It is first expressed in the cytoplasm of pro-B and pre-B cells, and on the surface as B cells mature to become IgD+. CD22 serves as an adhesion receptor for sialic acid-bearing ligands expressed on erythrocytes and all leukocyte classes. In addition to its potential role as a mediator of intercellular interactions, signal transduction through CD22 can activate B cells and modulate antigen receptor signaling in vitro. 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

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	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.
Predicted N Terminal	Trp 176
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human CD22 consists of 523 amino acids and predictes a molecular mass of 58.5 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4℃ before opening to recover the entire contents.

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Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.
Conjugation	Biotin

GENE INFORMATION

Gene Name	CD22 CD22 molecule [Homo sapiens]
Official Symbol	CD22
Synonyms	CD22; CD22 molecule; CD22 antigen; B-cell receptor CD22; SIGLEC 2; SIGLEC2; BL-CAM; SIGLEC-2; FLJ22814; MGC130020;
Gene ID	933
mRNA Refseq	NM_001185099
Protein Refseq	NP_001172028
MIM	107266
UniProt ID	P20273

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