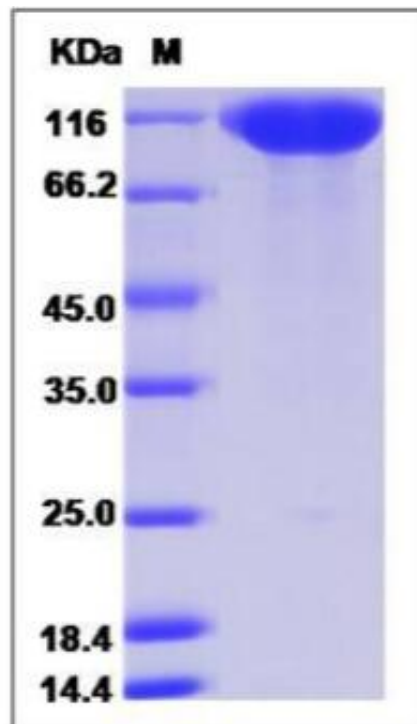


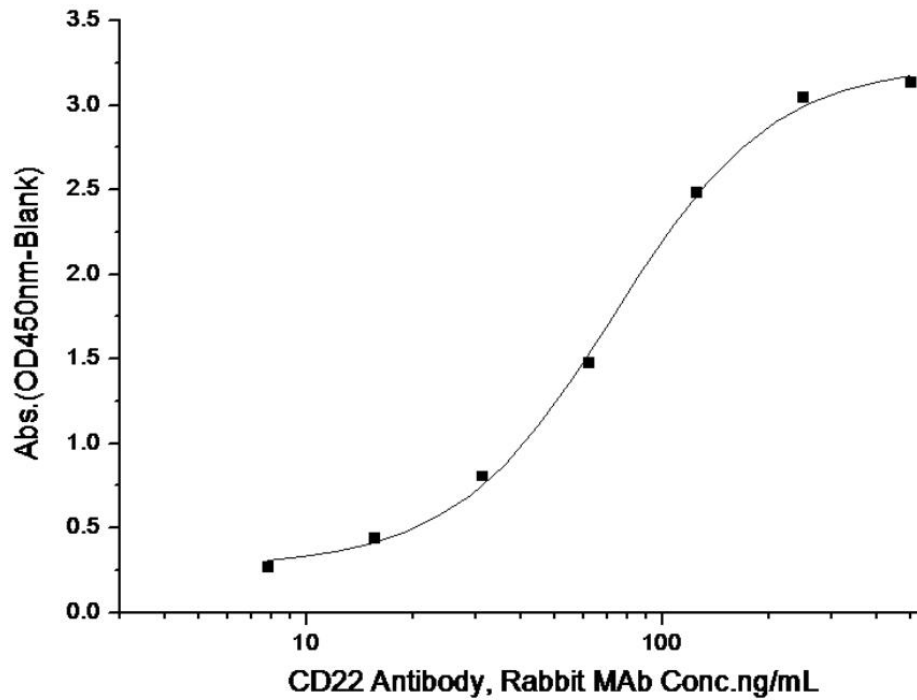
Recombinant Human CD22 Protein, C-His-tagged

Product Information

Cat	IMP-1947
Official Symbol	CD22
Product Overview	Recombinant human CD22 isoform-beta (P20273-1) extracellular domain (Met 1-Arg 687) was fused with a polyhistidine tag at the C-terminus.
Description	<p>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 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.</p>
Expression System	HEK293
Species	Human
Tag	C-His
Predicted N Terminal	Asp 20
Form	Lyophilized from sterile PBS, pH 7.4, 5 % trehalose, 5% mannitol and 0.01% Tween80.
Molecular Mass	The recombinant human CD22 consists of 679 amino acids and predicts a molecular mass of 76.6 kDa. As a result of glycosylation, it migrates as an approximately 108 kDa band in SDS-PAGE under reducing conditions.

Protein length	<i>Met1-Arg687</i>
Endotoxin	<i>< 1.0 EU/μg of the protein as determined by the LAL method</i>
Purity	<i>> 95 % as determined by SDS-PAGE</i>
Storage	<i>Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</i>
Reconstitution	<i>A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.</i>

SDS-PAGE**Bioactivity-ELISA 1**



Measured by its binding ability in a functional ELISA. Immobilized human CD22 at 0.02 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind anti-human CD22 Mab with a linear range of 0.2-50 ng/mL.