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Biotin Human CD33 (C-His-Avi)

Catalog Number:	809203, 809204
Size:	25 ug, 100 ug
Target Name:	CD33, SIGLEC3, gp67
Regulatory Status:	RUO

PRODUCT DETAILS

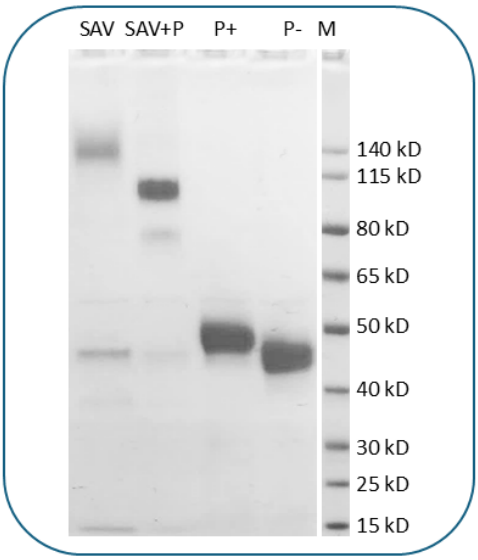
Application:	ELISA, BLI
Format:	Liquid, Biotinylated
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human CD33 Protein (Asp18-His259) with C-terminus His-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number:	P20138
Molecular Weight:	The protein has a predicted molecular weight of 30.4 kDa. Under DTT-reducing conditions, it migrates at approximately 45-55 kDa on SDS-PAGE.
Affinity Tag:	C-His-Avi
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level:	Not tested
Protein Concentration:	25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

BACKGROUND INFORMATION

CD33, also known as Siglec-3 or Sialic acid-binding Ig-like lectin 3, is a type I membrane glycoprotein and a member of the immunoglobulin superfamily. It contains one Ig-like V-type and one Ig-like C2-type domain. CD33 is primarily expressed on myelomonocytic cells, such as monocytes, granulocytes, and dendritic cells, where it functions as a sialic acid-dependent adhesion molecule. It preferentially binds to alpha-2,6-linked sialic acid on the surface of cells.In the immune response, CD33 acts as an inhibitory receptor. Upon ligand binding, it induces tyrosine phosphorylation and recruits phosphatases, which block signal transduction by dephosphorylating signaling molecules. This mechanism helps regulate immune activation. Additionally, CD33 is

implicated in inducing apoptosis in acute myeloid leukemia cells.CD33's function as an adhesion molecule is modulated by interactions with sialoglycoconjugates, influencing its role in cell adhesion. It plays an essential role in immune modulation and cell signaling, making it a critical target in immune response regulation and certain leukemia therapies.

PRODUCT DATA



Biotinylated Human CD33 (C-His-Avi) Protein on SDS-PAGE under non-reducing (P-) conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%. Based on Gel shift Assay by co-incubation with Streptavidin, biotinylation efficiency is >90% for Biotinylated CD33.

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