

Technical Data Sheet

Human CD33 (C-His)

Catalog Number: 809301, 809302

Size: 25 ug, 100 ug

Target Name: CD33, SIGLEC3, gp67

Regulatory Status: RUO

Product Details

Application: ELISA, BLI

Format: Liquid, Purified

Expression Host: CHO

Species: Human

Sources: Recombinant Human CD33 Protein (Asp18-His259) with C-terminus His-tag is expressed in CHO cell.

Accession Number: P20138

Molecular Weight: The protein has a predicted molecular weight of 28.3 kDa. Under DTT-reducing conditions, it migrates at approximately 45-55 kDa on SDS-PAGE.

Affinity Tag: C-His

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.

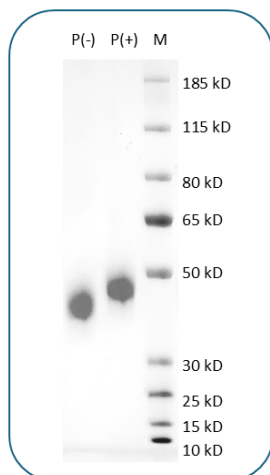
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution 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



Human CD33 Protein (C-His) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95%.