

Product datasheet for PH307023

CD33 (NM_001772) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CD33 MS Standard C13 and N15-labeled recombinant protein (NP_001763)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC207023
Predicted MW:	39.7 kDa
Protein Sequence:	>RC207023 protein sequence Red=Cloning site Green=Tags(s)

MPLLLLLLPLLWAGALAMPNFWLQVQESVTVQEGLCVLPCTFFHPIPYDKNSPVHGYWFREGAIIISGD
SPVATNKLDQEVQEEETQGRFRLLGDP SRNCSLSIVDARRRDNGSYFFRMRGSKTKYSYKSPQLSVHVTD
LTHRPKILIPGTLEPGHKNLTCSVSWACEQGTPIFSWL SAAPTSLGPRTTSSVLIITPRPQDHGTNL
TCQVKFAGAGVTTERTIQLNVTYVPQNPTTGIFPGDGGSGKQETRAGVVHGAIGGAGVTALLALCLCLIFF
IVKTHRRKAARTAVGRNDTHPTTGSASPKHQKSKLHGPTETSSCSGAAPTVMDEELHYASLNFGHMNP
SKDTSTEYSEVRTQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_001763</u>
RefSeq Size:	1466
RefSeq ORF:	1092
Synonyms:	p67; SIGLEC-3; SIGLEC3
Locus ID:	945



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UniProt ID: [P20138](#), [Q546G0](#)

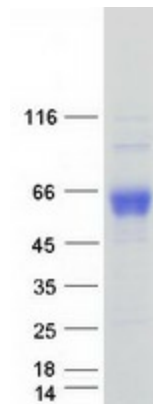
Cytogenetics: 19q13.41

Summary: Sialic-acid-binding immunoglobulin-like lectin (Siglec) that plays a role in mediating cell-cell interactions and in maintaining immune cells in a resting state (PubMed:10611343, PubMed:15597323, PubMed:11320212). Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans (PubMed:7718872). Upon engagement of ligands such as C1q or sialylated glycoproteins, two immunoreceptor tyrosine-based inhibitory motifs (ITIMs) located in CD33 cytoplasmic tail are phosphorylated by Src-like kinases such as LCK (PubMed:28325905, PubMed:10887109). These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:10556798, PubMed:10206955, PubMed:10887109). In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules (PubMed:10206955, PubMed:10887109). One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K (PubMed:15597323). [UniProtKB/Swiss-Prot Function]

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Hematopoietic cell lineage

Product images:



Coomassie blue staining of purified CD33 protein (Cat# [TP307023]). The protein was produced from HEK293T cells transfected with CD33 cDNA clone (Cat# [RC207023]) using MegaTran 2.0 (Cat# [TT210002]).