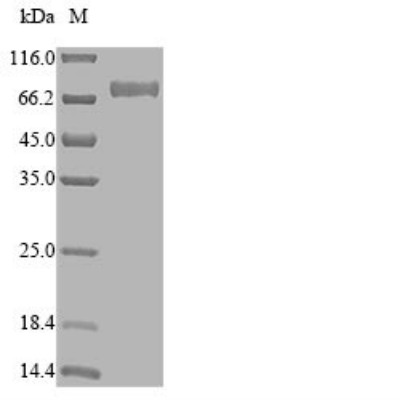
Recombinant Human Myeloid cell surface antigen CD33 (CD33), partial (Active)

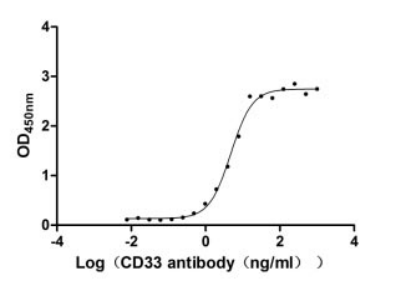
Product Code	CSB-MP004925HU
Relevance	Sialic-acid-binding immunoglobulin-like lectin that plays a role in mediating cell-cell interactions and in maintaining immune cells in a resting state . Preferentially recognizes and binds alpha-2,3- and more avidly alpha-2,6-linked sialic acid-bearing glycans . Upon engagement of ligands such as C1q or syalylated glycoproteins, two immunoreceptor tyrosine-based inhibitory motifs located in CD33 cytoplasmic tail are phosphorylated by Src-like kinases such as LCK . These phosphorylations provide docking sites for the recruitment and activation of protein-tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2 . In turn, these phosphatases regulate downstream pathways through dephosphorylation of signaling molecules . One of the repressive effect of CD33 on monocyte activation requires phosphoinositide 3-kinase/PI3K .
Abbreviation	Recombinant Human CD33 protein, partial (Active)
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P20138
Form	Lyophilized powder
Product Type	Others
Immunogen Species	Homo sapiens (Human)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized CD33 at 2 μg/ml can bind Anti-CD33 rabbit monoclonal antibody, the EC_{50} of human CD33 protein is 4.289- 5.312 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE. Greater than 90% as determined by SEC-HPLC.
Sequence	DPNFWLQVQESVTVQEGLCVLVPCTFFHPIPYYDKNSPVHGYWFREGAIISRD SPVATNKLDQEVQEETQGRFRLLGDPSRNNCSLSIVDARRRDNGSYFFRMER GSTKYSYKSPQLSVHVTDLTHRPKILIPGTLEPGHSKNLTCSVSWACEQGTPPI FSWLSAAPTSLGPRTTHSSVLIITPRPQDHGTNLTCQVKFAGAGVTTERTIQLN VTYVPQNPTTGIFPGDGSGKQETRAGVVH
Research Area	Cancer
Source	Mammalian cell
Target Names	CD33
Expression Region	18-259aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	C-terminal hFc1-Myc-tagged
Mol. Weight	56.9 kDa
Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
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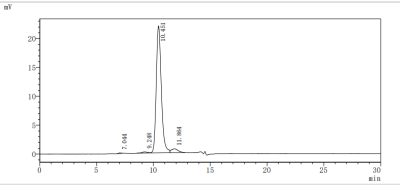

The purity of Human CD33 was greater than 90% as determined by SEC-HPLC

Description

The CD33 protein CSB-MP004925HU is a recombinant human CD33 produced in mammalian cells, with a C-terminal Fc-Myc-tag. Its expression region corresponds to amino acids 18-259 of the human CD33 protein. This recombinant CD33 protein is biologically active, low in endotoxin (less than 1.0 EU/μg protein, determined by the LAL method), and high in purity (greater than 95%, SDS-PAGE). In the functional ELISA, this CD33 protein binds to the anti-CD33 antibody with an EC_{50} constant of 4.289- 5.312 ng/ml. It is available now.

CD33 is a type I transmembrane protein exclusively expressed on immune cells, including myeloid stem cells, myeloblasts and monoblasts, monocytes/macrophages, granulocyte precursors, and mast cells. It is an excellent myeloid marker for acute myelocytic leukemia (AML). CD33 is mainly involved in the regulation of immune cell functions, such as phagocytosis, cytokine release, and apoptosis.

Endotoxin	Less than 1.0 EU/ug as determined by LAL method.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.