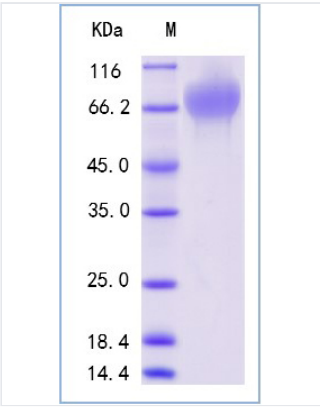
CD34 Recombinant Protein

PRODUCT OVERVIEW

Product Name	CD34, Recombinant Protein
Full Product Name	CD34 Protein, Human, Recombinant (His Tag)
Product Gene Name	CD34 recombinant protein
Product Synonym Names	Human CD34 Protein (His Tag); CD34 molecule
Sequence	Met1-Thr29 0
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>95% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	385
Chromosome Location	Chromosome: 1; NC_000001.10 (208059883..208084742, complement). Location: 1q32
OMIM	142230
3D Structure	ModBase 3D Structure for P28906
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ser 32
Tag	C-His
Protein Construction	A DNA sequence encoding the extracellular domain of human CD34 precursor (NP_001020280.1)(Met 1-Thr 290) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Product Categories/Family for CD34 recombinant protein	Cardiac Stem Cell Markers Hemangioblast Markers
Related Product Information for CD34 recombinant protein	Background: Cluster of Differentiation 34 (CD34) is a member of a family of single-pass transmembrane sialomucin proteins, and may function as a cell-cell adhesion factor. CD34 protein is selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues. It has been widely used as a stem and progenitor cell marker, and clinical CD34+ stem cell transplantation (CD34+SCT) has been performed for tumor purging. CD34 monoclonal antibodies are widely used to identify and isolate hemopoietic progenitors and to classify acute and chronic leukemias.

Product References and Citations for CD34 recombinant protein	Hogan CJ, et al. (2002) Differential long-term and multilineage engraftment potential from subfractions of human CD34+ cord blood cells transplanted into NOD/SCID mice. Proc Nat Acad Sci USA. 99 (1): 413-8.Nielsen JS,et al. (2009) CD34 is a key regulator of hematopoietic stem cell trafficking to bone marrow and mast cell progenitor trafficking in the periphery. Microcirculation. 16(6): 487-96.Mastrandrea F,et al. (2009) CD34+ hemopoietic precursor and stem cells traffic in peripheral blood of celiac patients is significantly increased but not directly related to epithelial damage severity. Eur Ann Allergy Clin Immunol. 40(3): 90-103.Pasquet S,et al. (2009) Long-term benefit of intracardiac delivery of autologous granulocyte-colony-stimulating factor-mobilized blood CD34+ cells containing cardiac progenitors on regional heart structure and function after myocardial infarct. Cytotherapy. 11(8): 1002-15.
Other Notes	Small volumes of CD34 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD34 purchase	MBS8120001 is a recombinant protein targeting CD34. Also known as CD34 Protein, Human, Recombinant (His Tag). Host: HEK293 Cells.



SDS-Page of CD34 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD34. It may not necessarily be applicable to this product.

NCBI GI #	68342038
NCBI GeneID	947
NCBI Accession #	NP_001020280.1
UniProt Primary Accession #	P28906
UniProt Secondary Accession #	Q15970; Q15971; Q5JTA3; Q5JTA4; Q9UJB1; A8K664
UniProt Related Accession #	P28906
GenBank Nucleotide #	NM_001025109.1
NCBI Official Full Name	hematopoietic progenitor cell antigen CD34 isoform a
NCBI Official Synonym Full Names	CD34 molecule
NCBI Official Symbol	CD34
UniProt Protein Name	Hematopoietic progenitor cell antigen CD34
Protein Family	Hematopoietic progenitor cell antigen
UniProt Gene Name	CD34
UniProt Entry Name	CD34_HUMAN
NCBI Protein Information	hematopoietic progenitor cell antigen CD34; CD34 antigen

UniProt Comments for CD34	CD34: Possible adhesion molecule with a role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. Could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. Presents carbohydrate ligands to selectins. Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues. Belongs to the CD34 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 1q32 Cellular Component: intercellular bridge; lysosome; integral to plasma membrane; perinuclear region of cytoplasm; cytoplasm; apical plasma membrane; basal plasma membrane; plasma membrane; external side of plasma membrane Molecular Function: sulfate binding; carbohydrate binding; transcription factor binding Biological Process: positive regulation of odontogenesis; regulation of immune response; negative regulation of nitric oxide biosynthetic process; glomerular filtration; cell motility involved in cell locomotion; negative regulation of blood coagulation; negative regulation of tumor necrosis factor production; signal transduction; positive regulation of interleukin-10 production; cell proliferation; cell-cell adhesion; positive regulation of angiogenesis; endothelial cell proliferation; regulation of blood pressure; tissue homeostasis; hemopoiesis; leukocyte migration
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