

Active Recombinant Human CD34 protein, His-tagged

Cat. No. CD34-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The recombinant human CD34 ECD protein is expressed as a 280-amino acid protein consisting of Ser32 - Thr290 region of and a C-terminal His-tag. It contains 9 potential N-linked glycosylation sites. Research Area: Stem Cell; Immunology. Pathway/Disease: Hemopoiesis; Cell adhesion; Leukemia.
Species	Human
Source	Human
ProteinLength	385aa
Description	CD34 is a singlepass, type I transmembrane protein belonging to the CD34 family that includes Podocalyxin, and Endoglycan. CD34 is a well-known hematopoietic progenitor cell antigen. It is a sialomucinlike molecule that is heavily glycosylated with 9 potential N-linked glycosylation sites in the extracellular domain. In the cytoplasmic region, CD34 contains serine residues that can be phosphorylated by PKC (protein kinase C), resulting in the recruitment of the hematopoietic adapter proteins and the activation of CD34 signaling pathways. CD34 is expressed on primitive hematopoietic stem cells and down-regulated as they differentiate into mature cells. The precise function of CD34 remains unclear. The pattern of CD34 expression suggests that it plays an important role in hematopoiesis. CD34 is found on multipotent precursors, bone marrow stromal cells, embryonic fibroblasts, vascular endothelia, mesenchymal stem cells, and some tumor cell lines. CD34 is involved in the adhesion of stem cells to the bone marrow extracellular matrix or to stromal cells. It can act as a scaffold for

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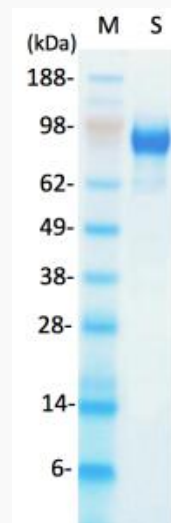
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	the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. CD34 is overexpressed in many types of tumors and implicated in leukemogenesis.
Form	Supplied at 0.5 mg/ml in sterile PBS pH7.4 (carrier & preservative free).
Bio-activity	Interacts with L-selectin and supports the adhesion of the human umbilical vein endothelial cell line (HUVEC). Binds anti-CD34 monoclonal antibodies, human IgG1 and rabbit IgG by ELISA with this immobilized protein.
Molecular Mass	Calculated molecular mass (kDa): 30; Estimated by SDS-PAGE under reducing condition (kDa): 75-90 suggesting that the protein may be heavily glycosylated
AA Sequence	SLDNNGTATPELPTQGTFSNVSTNVSYQETTTPTLGGSTSLHPVSQHGNEATTNITE TTVKFTSTSVITSVYGNTNSSVQ SQTSVISTVFTTPANVSTPETTLKPSLSPGNVSDL STTSTSLATSPTKPYTSSSPILSDIAEKCSGIREVKLTQGICL EQNKTSSCAEFKKD RGEGLARVLCGEEQADADAGAQCSSLQAQSEVRPQCLLLVLNRTEISSKLQLMK KHQSDLKKLG ILDFTEQDVASHQSYSQKTSTTENLYFQGSGTHHHHHHHH
Endotoxin	<0.1 EU per 1 µg of purified recombinant protein determined by the LAL method.
Purity	>92%
Storage	It is recommended to store small aliquots at the temperature below -20 centigrade for long-term storage and the product is stable for 3 months. The undiluted protein can be stored at 4 centigrade for no more than 2 weeks. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
Shipping	4 centigrade

GENE INFORMATION

Gene Name	CD34 CD34 molecule [Homo sapiens (human)]
Official Symbol	CD34
Synonyms	Hematopoietic progenitor cell antigen CD34; CD antigen CD34
Gene ID	947
mRNA Refseq	NM_001025109
Protein Refseq	NP_001020280
MIM	142230
UniProt ID	P28906



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10 µg of purified protein sample ("S") analyzed by SDS-PAGE under reducing condition and stained with Coomassie blue; "M", protein markers with molecular mass in kDa indicated at left.

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