Human CD34 Protein (Fc Tag)

Catalog Number: **10103-H02H**

General Information

Gene Name Synonym:

CD34

Protein Construction:

A DNA sequence encoding the extracellular domain of human CD34 precursor (NP_001020280.1) (Met 1-Thr 290) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > (67.1+28.7) % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of the HUVEC human umbilical vein endothelial cell line . When 4 x 10^4 cells/well are added to human CD34 coated plates (0.8 μg/ml, 100 μl/well), approximately >40 % will adhere after one hour at 37 ℃.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ser 32

Molecular Mass:

The recombinant human CD34/Fc is a disulfide-linked homodimer generated after removal of the signal peptide. The reduced monomer consists of 497 amino acids and has a predicted molecular mass of 54 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of the protein is 116 and 96 kDa due to different glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

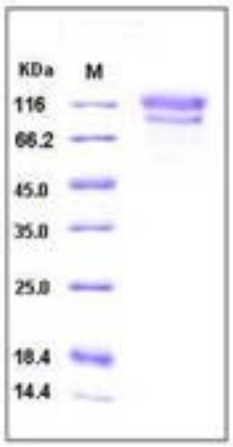
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.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. 2.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. 3.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.