# Biotinylated Human CD34 Protein, His,Avitag™ (MALS verified)

Catalog # CD4-H82E3

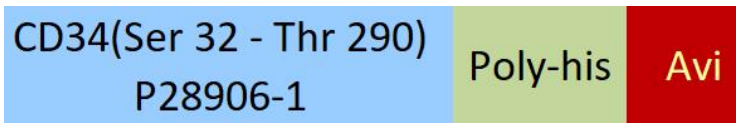
## Synonym

CD34,RP11-328D5.2

## Source

Biotinylated Human CD34 Protein, His,Avitag(CD4-H82E3) is expressed from human 293 cells (HEK293). It contains AA Ser 32 - Thr 290 (Accession # P28906-1 ).
Predicted N-terminus: Ser 32

## Molecular Characterization




This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 31.1 kDa. The protein migrates as 50-110 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

***Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.***

## Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

## Endotoxin

Less than 1.0 EU per μg by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

***For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***

## Storage

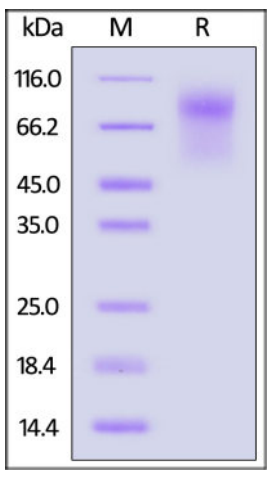
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

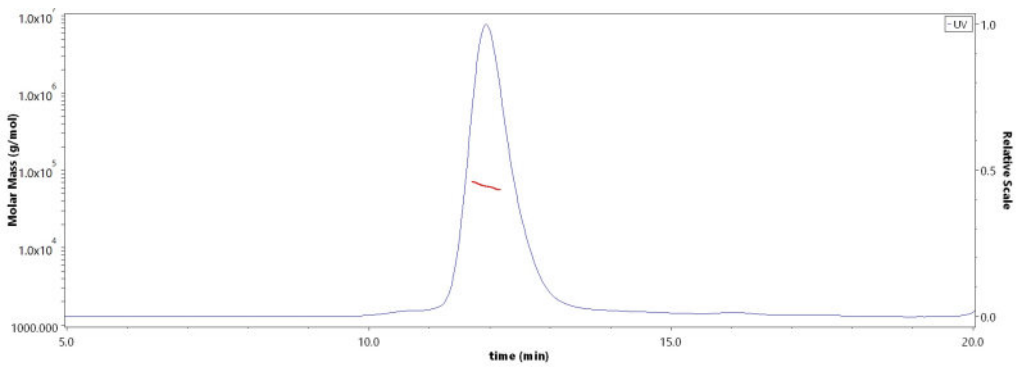
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE




Biotinylated Human CD34 Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

## SEC-MALS




The purity of Biotinylated Human CD34 Protein, His,Avitag (Cat. No. CD4-H82E3) is more than 90% and the molecular weight of this protein is around 55-75 kDa verified by SEC-MALS.
Report

## Background

CD34 molecule is a cluster of differentiation molecule present on certain cells within the human body. It is a cell surface glycoprotein and functions as a cell-cell adhesion factor. It may also mediate the attachment of stem cells to bone marrow extracellular matrix or directly to stromal cells. As a ~ 110 kDa monomeric cell surface antigen, CD34 is highly glycosylated with nine potential N-linked and numerous potential O-linked glycosylation sites in its extracellular domain. The CD34 protein is a member of a family of single-pass transmembrane sialomucin proteins that show expression on early hematopoietic and vascular-associated tissue. CD34 is also an important adhesion molecule and is required for T cells to enter lymph nodes. It is expressed on lymph node endothelia whereas the L-selectin to which it binds is on the T cell. It was indicated that CD34 is a phosphorylation target for activated PKC, and couples to the hematopoietic adapter protein CrkL, which were involved in CD34 signaling pathways. CD34 is abberantly expressed in many kinds of tumors and is implicated in leukemogenesis.

## Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.