

# Human CD31 / PECAM1 Protein

Catalog Number: 10148-HCCH



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD31; CD31/EndoCAM; endoCAM; GPIIA<sup>+</sup>; PECA1; PECAM-1

### Protein Construction:

The mature form of human CD31 (EAW94208.1) extracellular domain (Met1-Lys 601) with five additional amino acids (DDDDK) at the C-terminus was expressed and purified.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE.

### Bio Activity:

**Measured by the ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. When  $8 \times 10^4$  cells/well are added to CD31-coated plates (5  $\mu$ g/mL, 100  $\mu$ L/well) in the presence of 10  $\mu$ g/mL PHA, approximately >60% will adhere? after 30 minutes at 37°C.**

### Endotoxin:

< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

### Stability:

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

**Predicted N terminal:** Gln 28

### Molecular Mass:

The recombinant human CD31 consists of 580 amino acids and has a predicted molecular mass of 65.1 kDa. As a result of glycosylation, the molecular mass of rhCD31 is approximately 115 kDa in SDS-PAGE.

### Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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:

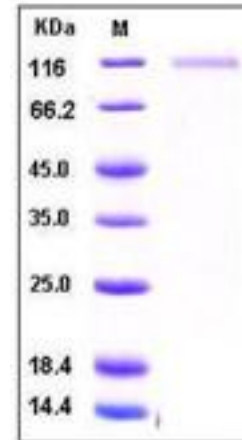
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

The Cluster of Differentiation 31 (CD31) adhesion molecule, also known as platelet-endothelial cell adhesion molecule-1 (PECAM-1), is the only known member of the CAM family on platelets. CD31 protein is a 13-kDa transmembrane glycoprotein expressed by endothelial cells, platelets, monocytes, neutrophils, and certain T cell subsets. CD31 protein is also expressed in certain tumors, including epithelioid hemangioendothelioma, other vascular tumors, and histiocytic malignancies. CD31 plays a key role in removing aged neutrophils and tissue regeneration. CD31 protein mediates the homotypic or heterotypic cell adhesion by binding to itself or the leukocyte integrin  $\alpha\beta_3$ , and thus plays a role in neutrophil recruitment in inflammatory responses, transendothelial migration of leukocytes, as well as in cardiovascular development.

## References

Deaglio S, et al. (2000) CD38/CD31, a receptor/ligand system ruling adhesion and signaling in human leukocytes. *Chem Immunol.* 75: 99-120.  
Kohler S, et al. (2009) Life after the thymus: CD31+ and CD31- human naive CD4+ T-cell subsets. *Blood.* 113(4): 769-74.

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