

# Recombinant Human VEGFR-2/KDR/CD309 Protein

Catalog No.: RP00084 Recombinant

# **Sequence Information**

Species Gene ID Swiss Prot Human 3791 P35968

### **Tags**

C-His

### **Synonyms**

CD309;FLK1;VEGFR;VEGFR2;VEGF Receptor 2;KDR

# **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

84.11 kDa 120-140 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g of the protein by LAL method.

#### Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

### Contact

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## **Background**

Vascular endothelial growth factor (VEGF) is a major growth factor for endothelial cells. This gene encodes one of the two receptors of the VEGF. This receptor, known as kinase insert domain receptor, is a type III receptor tyrosine kinase. It functions as the main mediator of VEGF-induced endothelial proliferation, survival, migration, tubular morphogenesis and sprouting. The signalling and trafficking of this receptor are regulated by multiple factors, including Rab GTPase, P2Y purine nucleotide receptor, integrin alphaVbeta3, T-cell protein tyrosine phosphatase, etc. Mutations of this gene are implicated in infantile capillary hemangiomas.

### **Basic Information**

### Description

Recombinant Human VEGFR-2/KDR/CD309 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala20-Glu764) of human VEGF R2/KDR (Accession  $\#NP_002244.1$ ) fused with a  $6\times His$  tag at the C-terminus.

#### **Bio-Activity**

1.Measured by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells(HUVEC). The ED $_{50}$  for this effect is typically 10-50  $\mu g/mL$  in the presence of 10 ng/mL recombinant human VEGF165.]2.Measured by its binding ability in a functional ELISA. Immobilized PE anti-human CD309 (VEGFR2) Antibody at 1  $\mu g/mL$  (25  $\mu L/well$ ) can bind Human VEGFR2 with a linear range of 0.46-68.8 ng/mL.

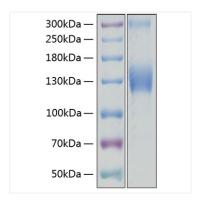
# Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

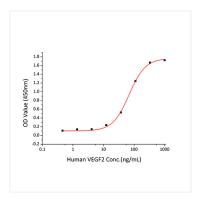
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

# **Validation Data**



Recombinant Human VEGFR-2/KDR/CD309 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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