

## 37-1036: Human VEGFR2 / Flk-1 / CD309 / KDR Recombinant Protein (Domain 1&2&3, Fc Tag)(Discontinued)

**Reactivity :** Human

**Alternative Name :** CD309 Protein, Flk-1 Protein, FLK1 Protein, VEGFR Protein, VEGFR2 Protein,

### Description

#### Source : HEK293 Cells

VEGFR2, also called as KDR or Flk-1, is identified as the receptor for VEGF and VEGFC and an early marker for endothelial cell progenitors, whose expression is restricted to endothelial cells in vivo. VEGFR2 was shown to be the primary signal transducer for angiogenesis and the development of pathological conditions such as cancer and diabetic retinopathy. It has been shown that VEGFR2 is expressed mainly in the endothelial cells, and the expression is upregulated in the tumor vasculature. Thus the inhibition of VEGFR2 activity and its downstream signaling are important targets for the treatment of diseases involving angiogenesis. VEGFR2 transduces the major signals for angiogenesis via its strong tyrosine kinase activity. However, unlike other representative tyrosine kinase receptors, VEGFR2 does not use the Ras pathway as a major downstream signaling but rather uses the phospholipase C-protein kinase C pathway to signal mitogen-activated protein (MAP)-kinase activation and DNA synthesis. VEGFR2 is a direct and major signal transducer for pathological angiogenesis, including cancer and diabetic retinopathy, in cooperation with many other signaling partners; thus, VEGFR2 and its downstream signaling appear to be critical targets for the suppression of these diseases. VEGF and VEGFR2-mediated survival signaling is critical to endothelial cell survival, maintenance of the vasculature and alveolar structure and regeneration of lung tissue. Reduced VEGF and VEGFR2 expression in emphysematous lungs has been linked to increased endothelial cell death and vascular regression. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

### Product Info

**Amount :** 1 / CD309 / KDR Recombinant Protein (Domain 1&2&3, Fc Tag)(Discontinued) / 200 µg

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

**Content :** Formulation Lyophilized from sterile PBS, pH 7.4.  
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Storage condition :** Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Amino Acid :** Met1-Lys327

### Application Note

Measured by its ability to inhibit VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC) in the presence of 10 ng/mL rhVEGF165. The ED50 for this effect is 40-120ng/mL.

Endotoxin :< 1.0 EU per µg protein as determined by the LAL method.

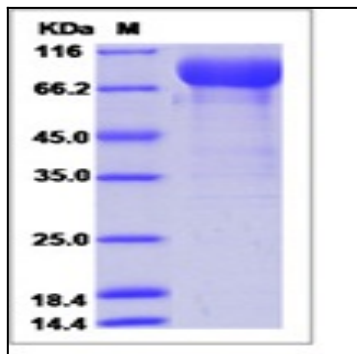


Fig 1: Human VEGFR2 / Flk-1 / CD309 / KDR Recombinant Protein (Domain 1&2&3, Fc Tag)

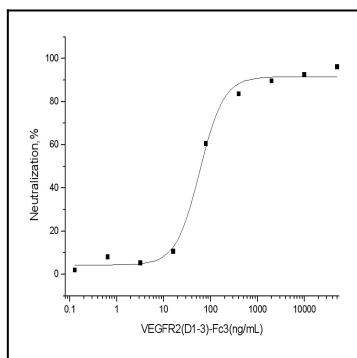


Fig 2: Human VEGFR2 / Flk-1 / CD309 / KDR Recombinant Protein (Domain 1&2&3, Fc Tag) measured by its ability to inhibit VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC) in the presence of 10 ng/mL rhVEGF165.