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Kdr
Recombinant Mouse VEGFR2 / CD309 / KDR (Fc Tag)

Catalog No.	CRM722A-Fc	**Quantity:**	50 µg
	CRM722B-Fc		100 µg

Alternate Names: Vascular endothelial growth factor receptor 2, VEGFR-2, Fetal liver kinase 1, FLK-1, Kinase NYK, Protein-tyrosine kinase receptor flk-1, CD309

Description: VEGFR2 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.

UniProt ID: P35918

Protein Construction: A DNA sequence encoding the mouse KDR (Met1-Glu762) was expressed, fused with the Fc region of human IgG1 at the C-terminus.

Source: HEK293 Cells

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

Molecular Weight: The rmKDR /Fc consists of 984 aa with a predicted MW of 110 KDa and migrates at ~120 KDa in SDS-PAGE under reducing conditions, due to glycosylation.

Purity: > 90 % as determined by SDS-PAGE.

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

Biological Activity: Immobilized mouse VEGF164 at 10 µg/ml (100 µl/well) can bind mouse KDR-Fc, The EC50 of mouse KDR-Fc is 0.11-0.27 µg/ml.

Predicted N-terminal: Ala 20

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Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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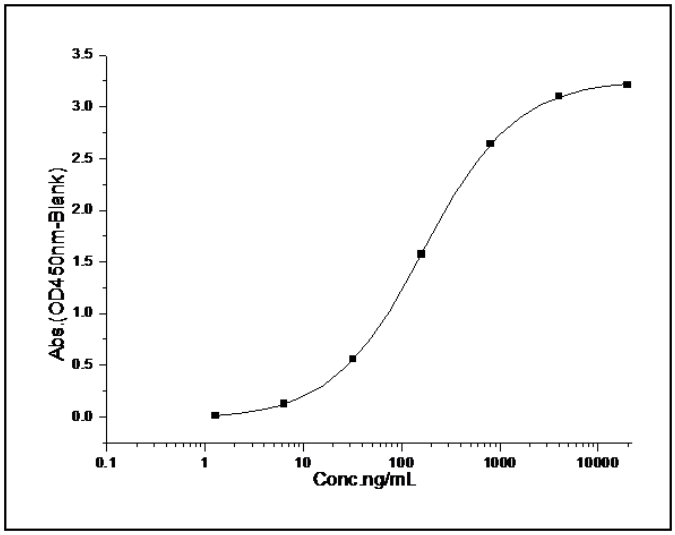
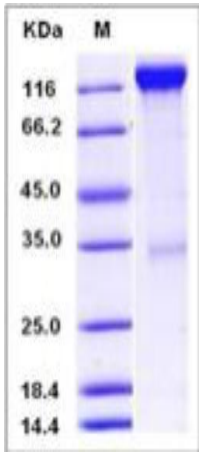


SDS-PAGE



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