Recombinant Human KDR HEK293 cell lysate

Cat. No. KDR-1619RCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human KDR(Met 1-Glu 764) with the Fc region of human IgG1 at the C-terminus derived in Human HEK293 cell line.
Species	Human
Source	HEK293
ProteinLength	Met 1-Glu 764
Description	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

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	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.
Predicted N Terminal	Ala 20
Form	Storage Buffer: 1 X Sample Buffer (1 X modified RIPA buffer+1 X SDS loading buffer). Lysis Buffer: Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Molecular Mass	The recombinant human VEGFR2/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 979 amino acids and predicts a molecular mass of 109 kDa. The apparent molecular mass of rh VEGFR2/Fc monomer is approximatly 150-160 in SDS-PAGE under reducing conditions.
Applications	Western blot (WB): Use at an assay dependent dilution. Other Applications: Not tested. Optimal dilutions/concentrations should be determined by the end user. 1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube. 2. Re-dissolve the pellet using 200μL pure water and boil for 2-5 min. 3. Store the lyophilized cell lysate at 4 centigrade. After re-dissolution, recommend to aliquot it into smaller quantities and store at -80 centigrade.
Notes	Cell lysate was prepared by homogenization in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors (Sigma). Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (Bio-Rad protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	SDS loading buffer (50 mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Stability	Samples are stable for up to twelve months from date of receipt.
Storage	Store at 4 centigrade. After re-dissolution, aliquot and store at -80 centigrade.
Reconstitution	Reconstitute in PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	KDR kinase insert domain receptor (a type III receptor tyrosine kinase) [Homo sapiens]
Official Symbol	KDR
Synonyms	KDR; kinase insert domain receptor (a type III receptor tyrosine kinase); vascular endothelial growth factor receptor 2; CD309; FLK1; VEGFR; VEGFR2; soluble VEGFR2; fetal liver kinase 1; fetal liver kinase-1; protein-tyrosine kinase receptor Flk-1; tyrosine kinase growth factor receptor;
Gene ID	3791
mRNA Refseq	NM_002253
Protein Refseq	NP_002244
MIM	191306
UniProt ID	P35968

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA