

Recombinant Human KDR, C13&N15-labeled

Cat. No. KDR-240H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human VEGFR2 /KDR MS Standard Protein, C13 and N15-labeled (VEGFR2 / KDR, Heavy Labeled) Met 1 - Glu 764 (Accession # AAI31823) was produced in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	1-764 a.a.
Description	Kinase insert domain receptor (KDR) also known as CD309, FLK1, VEGFR, VEGFR2, and is one of the subtypes of VEGFR. VEGF receptors are receptors for vascular endothelial growth factor (VEGF). There are three main subtypes of VEGFR, numbered 1, 2 and 3. The VEGF receptors have an extracellular portion consisting of 7 immunoglobulin-like domains, a single transmembrane spanning region and an intracellular portion containing a split tyrosine-kinase domain. VEGF-A binds to VEGFR-1 (Flt-1) and VEGFR-2 (KDR/Flk-1). VEGFR-2 appears to mediate almost all of the known cellular responses to VEGF. The function of VEGFR-1 is less well defined, although it is thought to modulate VEGFR-2 signaling. Another function of VEGFR-1 may be to act as a dummy/decoy receptor, sequestering VEGF from VEGFR-2 binding (this appears to be particularly important during vasculogenesis in the embryo).[1-3] In addition, VEGFR2 is able to interact with HIV-1 extracellular Tat protein upon VEGF activation, and seems to enhance angiogenesis in Kaposi's sarcoma lesions.

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	VEGFR2 / KDR, Heavy Labeled, fused with 6×His tag at the C-terminus, has a calculated MW of 86.2 kDa. The predicted N-terminus is Met 1. DTT-reduced Protein migrates as 100-110 kDa due to glycosylation.
Endotoxin	Less than 1.0 EU per µg of the VEGFR2 / KDR, Heavy Labeled by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC-8oC); After reconstitution under sterile conditions for 1 month (4oC-8oC) or 3 months (-20oC to -70oC).

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

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Protein Refseq	NP_002244
MIM	191306
UniProt ID	P35968
Chromosome Location	4q11-q12
Pathway	Angiogenesis, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, organism-specific biosystem;
Function	ATP binding; Hsp90 protein binding; growth factor binding; integrin binding; nucleotide binding; protein binding; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; transmembrane receptor protein tyro

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