

Recombinant Human KDR

Cat. No. KDR-31717TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 805-1356 of Human VEGF Receptor 2, with an N terminal proprietary tag.
Species	Human
ProteinLength	805-1356 a.a.
Description	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.
Biological activity	40 U/μg. One unit is defined as the amount of enzyme that will transfer 1 pmol phosphate to Tyr substrate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 3 mM MgCl ₂ , 3 mM MnCl ₂ , 1 mM DTT, 3 μM Na-orthovanadate, 0.5 mM ATP, 30 μg/ml Poly
Form	Liquid
Purity	>90% by SDS-PAGE

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Storage buffer	Preservative: None Constituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM Tris HCl, 100mM Sodium chloride, 10mM Reduced glutathione, pH 8
Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.

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;
Gene ID	3791
mRNA Refseq	NM_002253
Protein Refseq	NP_002244
MIM	191306
Uniprot ID	P35968
Chromosome Location	4q11-q12

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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;
Function	ATP binding; Hsp90 protein binding; growth factor binding; integrin binding; nucleotide binding;

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