

Recombinant Human KDR

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

SPECIFICATION

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| 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

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| 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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