

Overview

Synonyms	CD309; Flk-1; KDR
Description	<p>Vascular endothelial growth factor receptor 2 (VEGF R2), also known as Kinase insert domain receptor (KDR) and Fetal Liver Kinase 1 (Flk-1), is a type III receptor tyrosine kinase which plays a critical role in angiogenesis. VEGFR-1 and VEGFR-2 are closely related receptor tyrosine kinases and have both common and specific ligands. VEGFR-1 is a kinase-impaired RTK whereas VEGFR-2 is a highly active kinase. Vascular endothelial growth factors (VEGFs) are crucial regulators of vascular development during embryogenesis (vasculogenesis) as well as blood-vessel formation (angiogenesis) in the adult. In mammals, five VEGF ligands, which occur in several different splice variants and processed forms, have been identified so far. These ligands bind in an overlapping pattern to three receptor tyrosine kinases (RTKs), known as VEGF receptor-1, -2 and -3 (VEGFR1-3), as well as to co-receptors (here defined as VEGF-binding molecules that lack established VEGF-induced catalytic function), such as heparin sulphate proteoglycans (HSPGs) and neuropilins.</p> <p>Recombinant Human VEGF R2/KDR produced in CHO cells is a polypeptide chain containing 978 amino acids. rhVEGFR2/KDR has a molecular mass of 150 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
Accession No	P35968
Source	CHO
Biological Activity	<p>Measured by its ability to inhibit the VEGF dependent proliferation of HUVEC (human umbilical vein endothelial cells). The ED₅₀ for this effect is < 30 ng/mL in the presence of 5 ng/mL rhVEGF165 (Catalog: Z02689-10).</p>
Sequence	<pre> ASVGLPSVSL DLPRLSIQKD ILTIKANTTL QITCRGQRDL DWLWPNNQSG SEQRVEVTEC SDGLFCKTLT IPKVIGNDTG AYKCFYRETD LASVIYVVYVQ DYRSPFIASV SDQHGCVYIT ENKNKTVVIP CLGSISNLNV SLCARYPEKR FVPDGNRISW DSKKGFTIPS YMSIYAGMVF CEAKINDESY QSIMYIVVVV GYRIYDVVLS PSHGIELSVG EKLVLNCTAR TELNVGIDFN WEYPSSKHQH KKLVNRDLKT QSGSEMKKFL STLTIDGVTR SDQGLYTCAA SSGLMTKKNS TFVVRVHEKPF VAFGSGMESL VEATVGERVR IPAKYLGYPP PEIKWYKNGI PLESNHTIKA GHVLTIMEVS ERDTGNYTVI LTNPISKEKQ SHVVSLVVYV PPQIGEKSLI SPVDSYQYGT TQTLTCTVYA IPPPHIHWHY WQLEEECANE PSQAVSVTNP YPCHEWRSVE DFQGGNKIEV NKNQFALIEG KNKTVSTLVI QANVSALYK CEAVNKVGRG ERVISFHVTR GPEITLQPDQ QPTEQESVSL WCTADRSTFE NLTWYKLGPO PLPIHVGELP TPVCKNLDTL WKLNATMFSN STNDILIMEL KNASLQDQGD YVCLAQDRKT KKRHCVVRQL TVLERVAPTI TGNLENQTTT IGESIEVSCT ASGNPPPQIM WFKDNETLVE DSGIVLKDGN RNLTIRRVKR EDEGLYTCAQ CSVLGCAPVE AFFIIEGAQE KTNLEIEGRM DDKTHTCPPC PAPELLGGPS VFLFPPKPKD TLMISRTPEV TCVVVDVSHE DPEVKFNWYV DGVEVHNAKT KPREEQYNST YRVVSVLTVL HQDWLNGKEY KCKVSNKALP APIEKTISKA KGQPREPQVY TLPPSREEMT KNQVSLTCLV KGFYPSDIAV EWESNGQPEN NYKTTTPVLD SDGSFFLYSK LTVDKSRWQQ GNVFSCSVMH EALHNHYTQK SLSLSPGK </pre>

Properties

Measured Molecular Weight	150 kDa, observed by reducing SDS-PAGE.
Purity	> 98% as analyzed by SDS-PAGE&HPLC.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant Human VEGF R2/KDR remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human VEGF R2/KDR should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.
Note	For research use only

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