Product Data Sheet

Product Name:	VEGFR2 Human
Cat. No.:	GP22650
Batch No.:	1

Product Data

Purity	>98%	Source	Insect Cells.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	KDR D1-7; sKDR D1-7; Kinase insert domain receptor; Protein-tyrosine kinase receptor Flk-1; CD309; type III receptor tyrosine kinase; FLK1; VEGFR-2.		
Amino Acid Sequence	ASVGLPSVSLD LPRLSIQKDI LTIKANTTLQ ITCRGQRDLD WLWPNNQSGS EQRVEVTECS DGLFCKTLTI PKVIGNDTGA YKCFYRETDL ASVIYVYVQD YRSPFIASVS DQHGVVYITE NKNKTVVIPC LGSISNLNVS LCARYPEKRF VPDGNRISWD SKKGFTIPSY MISYAGMVFC EAKINDESYQ SIMYIVVVVG YRIYDVVLSP SHGIELSVGE KLVLNCTART ELNVGIDFNW EYPSSKHQHK KLVNRDLKTQ SGSEMKKFLS TLTIDGVTRS DQGLYTCAAS SGLMTKKNST FVRVHEKPFV AFGSGMESLV EATVGERVRI PAKYLGYPPP EIKWYKNGIP LESNHTIKAG HVLTIMEVSE RDTGNYTVIL TNPISKEKQS HVVSLVVYVP PQIGEKSLIS PVDSYQYGTT QTLTCTVYAI PPPHHIHWYW QLEEECANEP SQAVSVTNPY PCEEWRSVED FQGGNKIEVN KNQFALIEGK NKTVSTLVIQ AANVSALYKC EAVNKVGRGE RVISFHVTRG PEITLQPDMQ PTEQESVSLW CTADRSTFEN LTWYKLGPQP LPIHVGELPT PVCKNLDTLW KLNATMFSNS TNDILIMELK NASLQDQGDY VCLAQDRKTK KRHCVVRQLT VLERVAPTIT GNLENQTTSI GESIEVSCTA SGNPPPQIMW FKDNETLVED SGIVLKDGNR NLTIRRVRKE DEGLYTCQAC SVLGCAKVEA FFIIEGA.		
Solubility	It is recommended to reconstitute the lyophilized VEGFR2 in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	KDR was lyophilized from a concentrated (1mg/ml) sterile solution containing 25mM MES pH-5.5 and 100mM NaCl.		

Introduction

Endothelial cells express three different vascular endothelial growth factor (VEGF)

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Endothelial cells express three different vascular endothelial growth factor (VEGF) receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Flk-1), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes. All VEGF-receptors have seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. VEGFR-2 has a lower affinity for VEGF than the Flt-1 receptor, but a higher signaling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation.Differential splicing of the flt-1 gene leads to the formation of a secreted, soluble variant of VEGFR-1 (sVEGFR-1). No naturally occuring, secreted forms of VEGFR-2 have so far been reported. The binding of VEGF165 to VEGFR-2 is dependent on heparin.

Stability

Lyophilized VEGFR-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution FLK1 should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

Soluble VEGFR-2 Human Recombinant produced in baculovirus is monomeric, glycosylated, polypeptide having a molecular mass of 116 kDa. The soluble receptor protein contains only the first 7 extracellular domains, which contain all the information necessary for ligand binding.The sKDR is purified by proprietary chromatographic techniques.

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