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# SCIENTIFIC

## **VEGFR2** Human

**Description:** 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.

**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.

Source:Insect Cells.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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 KI VI NCTART F

Purity: Greater than 95.0% as determined by SDS-PAGE.

#### Formulation:

KDR was lyophilized from a concentrated (1 mg/ml) sterile solution containing 25mM MES pH-5.5 and 100mM NaCl.

### 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.

# Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

#### Solubility:

It is recommended to reconstitute the lyophilized VEGFR2 in sterile water not less than 100

### Introduction:

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







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