ACTIVE BIOSCIENCE
PROTEINS · CELLS · ANTIBODIES

Human KDR-Fc Chimera / VEGFR-2 soluble (InCs)

Synonyms: soluble vascular endothelial growth factor receptor-2 , soluble CD309, soluble VEGF receptor-2, sKDR

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
10 µg	1621.952.010		
50 µg	1621.952.050		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant human soluble Vascular Endothelial Growth Factor Receptor-2 (sVEGFR-2(D7)) was fused with the Fc part of human IgG1. The recombinant mature sVEGFR-2(D7)/Fc is a disulfide-linked homodimeric protein. The soluble receptor protein consists of all 7 extracellular domains (Met1-Ala757), which contain all the information necessary for high affinity ligand binding. 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), and 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 signalling 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 occurring, secreted forms of VEGFR-2 have so far been reported. The binding of VEGF165 to VEGFR-2 is dependent on heparin.

- **Source** Insect cells
- **Purity** ≥ 90 % (SDS-PAGE, silver stained)

Biological Activity

The activity of sVEGFR-2/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells.

Reconstitution

The lyophilized sVEGFR-2/Fc is soluble in water and most aqueous buffers, it should be reconstituted in water or medium to a concentration not lower than 50 µg/ml.

Amino Acid Sequence

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ASVGLPSVSL DLPRLSIQKD ILTIKANTTL QITCRGQRDL DWLWPNNQSG SEQRVEVTEC SDGLFCKTLT
IPKVIGNDTG AYKCFYRETD LASVIYVYVQ DYRSPFIASV SDQHGVVYIT ENKNKTVVIP CLGSISNLNV
SLCARYPEKR FVPDGNRISW DSKKGFTIPS YMISYAGMVF CEAKINDESY QSIMYIVVVV GYRIYDVVLS
PSHGIELSVG EKLVLNCTAR TELNVGIDFN WEYPSSKHQH KKLVNRDLKT QSGSEMKKFL STLTIDGVTR
SDQGLYTCAA SSGLMTKKNS TFVRVHEKPF VAFGSGMESL VEATVGERVR IPAKYLGYPP PEIKWYKNGI
PLESNHTIKA GHVLTIMEVS ERDTGNYTVI LTNPISKEKQ SHVVSLVVYV PPQIGEKSLI SPVDSYQYGT
TQTLTCTVYA IPPPHHIHWY WQLEEECANE PSQAVSVTNP YPCEEWRSVE DFQGGNKIEV NKNQFALIEG
KNKTVSTLVI QAANVSALYK CEAVNKVGRG ERVISFHVTR GPEITLQPDM QPTEQESVSL WCTADRSTFE
NLTWYKLGPQ PLPIHVGELP TPVCKNLDTL WKLNATMFSN STNDILIMEL KNASLQDQGD YVCLAQDRKT
KKRHCVVRQL TVLERVAPTI TGNLENQTTS IGESIEVSCT ASGNPPPQIM WFKDNETLVE DSGIVLKDGN
RNLTIRRVRK EDEGLYTCQA CSVLGCAKVE AFFIIEGANA SDKTHTCPPC PAPELLGGPS VFLFPPKPKD
TLMISRTPEV TCVVVDVSHE DPEVKFNWYV DGVEVHNAKT KPREEQYNST YRVVSVLTVL HQDWLNGKEY
KCKVSNKALP APIEKTISKA KGQPREPQVY TLPPSREEMT KNQVSLTCLV KGFYPSDIAV EWESNGQPEN
NYKTTPPMLD SDGSFFLYSK LTVDKSRWQQ GNVFSCSVMH EALHNHYTQK SLSLSPGK
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Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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