Human Flt-1/VEGFR-1 (D7)-FC Chimera, soluble

Synonyms: soluble vascular endothelial growth factor receptor-1, soluble FLT1, soluble VEGFR-1

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
10 µg	1399.952.010		
50 µg	1399.952.050		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant human soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1(D7)) was fused with the Fc part of human IgG1. The recombinant mature sVEGFR-1(D7)/Fc is a disulfide-linked homodimeric protein. The sVEGFR-1(D7)/Fc monomers have a mass of approximately 130 kDa. The soluble receptor protein consists of all 7 extracellular domains (Met1-Thr751), 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-1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells.

Reconstitution

The lyophilized sVEGFR-1/Fc should be reconstituted in water to a concentration not lower than 50µg/ml.

Amino Acid Sequence

SKLKDPELSL KGTQHIMQAG QTLHLQCRGE AAHKWSLPEM VSKESERLSI TKSACGRNGK QFCSTLTLNT
AQANHTGFYS CKYLAVPTSK KKETESAIYI FISDTGRPFV EMYSEIPEII HMTEGRELVI PCRVTSPNIT
VTLKKFPLDT LIPDGKRIIW DSRKGFIISN ATYKEIGLLT CEATVNGHLY KTNYLTHRQT NTIIDVQIST
PRPVKLLRGH TLVLNCTATT PLNTRVQMTW SYPDEKNKRA SVRRRIDQSN SHANIFYSVL TIDKMQNKDK
GLYTCRVRSG PSFKSVNTSV HIYDKAFITV KHRKQQVLET VAGKRSYRLS MKVKAFPSPE VVWLKDGLPA
TEKSARYLTR GYSLIIKDVT EEDAGNYTIL LSIKQSNVFK NLTATLIVNV KPQIYEKAVS SFPDPALYPL
GSRQILTCTA YGIPQPTIKW FWHPCNHNHS EARCDFCSNN EESFILDADS NMGNRIESIT QRMAIIEGKN
KMASTLVVAD SRISGIYICI ASNKVGTVGR NISFYITDVP NGFHVNLEKM PTEGEDLKLS CTVNKFLYRD
VTWILLRTVN NRTMHYSISK QKMAITKEHS ITLNLTIMNV SLQDSGTYAC RARNVYTGEE ILQKKEITIR
DQEAPYLLRN LSDHTVAISS STTLDCHANG VPEPQITWFK NNHKIQQEPG IILGPGSSTL FIERVTEEDE
GVYHCKATNQ KGSVESSAYL TVQGTRSDKT HTCPPCPAPE LLGGPSVFLF PPKPKDTLMI SRTPEVTCVV
VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE
KTISKAKGQP REPQVYTLPP SREEMTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPMLDSDGS
FFLYSKLTVD KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGK

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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