

VEGFR-1/Flt-1 (native), soluble Active Protein | VEGFR-1/Flt-1 active protein

Human VEGFR-1/Flt-1 (native), soluble

CATALOG #
AAA14952

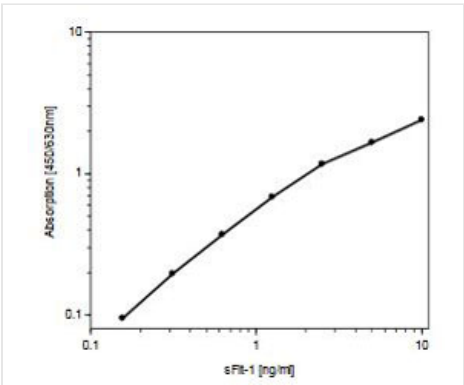
HOST
Insect Cells

PRODUCT SYNONYMS

VEGFR-1/Flt-1 (native); soluble; Human VEGFR-1/Flt-1 (native); Recombinant Human Endogenous Soluble VEGFR-1/Flt-1; Fms-like tyrosine kinase 1; Vascular permeability factor receptor; VEGFR-1/Flt-1 active protein

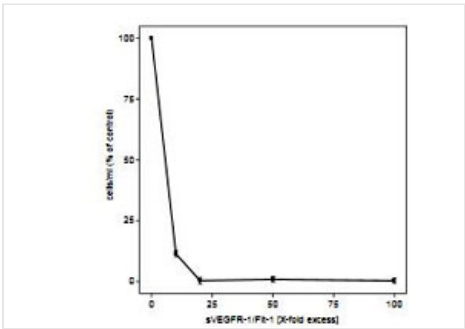
PRODUCT SPECIFICATIONS

Host	Insect Cells
Purity/Purification	> 95% by SDS-PAGE
Form/Format	Lyophilized
Sequence	SKLKDPPELSL KGTQHIMQAG QTLHLQCRGE AAHKWSLPPEM VSKESERLSI TKSACGRNGK QFCSTLTNT AQANHTGFYS CKYLAVPTSK KKETESAIY FISDTGRPFV EMYSEIPEII HMTGRELVI PCRVTSPNIT VTLKKFPLDT LIPDGKRIIW DSRKGFIISN ATYKEIGLLT CEATVNGHLY KTNYLTHRQT NTIIDVQIST PRPVKLLRGH TLVLNCTATT PLNTRVQMTW SYPDEKNKRA SVRRRIDQSN SHANIFYSVL TIDKMQNKDK GLYTCDVRSG PSFKSVNTSV HIYDKAFITV KHKQQVLETV AGKRSYRLSM KVKAFPSPEV VWLKDGLPAT EKSARYLTRG YSLIHKDVTE EDAGNYTILL SIKQSNVFNK LTATLIVNVK PQIYEKAVSS FPDALYPLG SRQILTCTAY GIPQPTIKWF WHPCNHNHSE ARCDFCSNNE ESFILDADSN MGNRIESITQ RMAIIEGKNK MASTLVVADS RISGIYICIA SNKVGTVGRN ISFYITDVPN GFHVNLEKMP TEGEDKLSC TVNKFYRDV TWILLRTVNN RTMHYSISKQ KMAITKEHSI TLNLTIMNVS LQDSGTYACR ARNVYTGEI LQKKEITIRG EHCNKKAVFS RISKFKSTRN DCTTQSNVKH
Sequence Length	661
Buffer	PBS
Length (aa)	661
Result by N-terminal sequencing	SKLKD
Reconstitution	The lyophilized sVEGFR-1 is soluble in water and most aqueous buffers and should be reconstituted in PBS to a concentration not lower than 100 ug/ml.
Biological Activity	The activity of sVEGFR-1 was determined by its ability to inhibit the VEGF-A-induced proliferation of HUVECs.
Preparation and Storage	Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted sVEGFR-1 should be stored in working aliquots at -70°C. Avoid repeated freeze and thaw cycles.



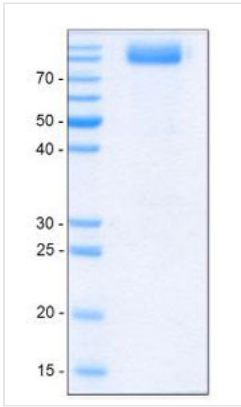
Application Data

Figure 3.FLT-1 Sandwich-ELISA using recombinant human soluble FLT-1as standard [AAA14952]. Mouse anti-human FLT-1 #EWI was used as capture antibody, Biotinylated rabbit anti-human FLT-1 was used for detection.



Application Data

Fig. 2: Inhibition of the VEGF165-induced proliferation in HUVECs by soluble VEGFR-1/Flt-1.VEGF165(10ng/ml) was preincubated with increasing amounts of sVEGFR-1/Flt-1 for 1h and then added to the cells.



SDS-PAGE

Fig. 1: SDS-PAGE analysis of recombinant human soluble VEGFR-1 produced in insect cells. Sample was loaded in 15% SDS-polyacrylamide gel under reducing condition and stained with Coomassie stain .

ADDITIONAL INFORMATION

Related Product Information for VEGFR-1/Flt-1 active protein	Recombinant human soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1) is the naturally occurring form and was cloned from total RNA of human umbilical vein endothelial cells. The recombinant mature sVEGFR-1 is a glycosylated monomeric protein with a mass of approximately 96 kDa. The soluble receptor protein consists of the first 6 extracellular domains (Met1-His688) containing the unique 31 amino acids residues at the C-terminus. 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, dendritic cells and on trophoblast cells. The flt-1 gene was first described in 1990. The receptor contains seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. Compared to VEGFR-2 the Flt-1 receptor has a higher affinity for VEGF but a weaker signaling activity. VEGFR-1 thus leads not to proliferation of endothelial cells, but mediates signals for differentiation. Interestingly, a naturally occurring soluble variant of VEGFR-1 (sVEGFR-1) was found in HUVEC supernatants in 1996, which is generated by alternative splicing of the flt-1 mRNA. The biological functions of sVEGFR-1 still are not clear, but it seems to be an endogenous regulator of angiogenesis binding VEGF with the same affinity as the full-length receptor.
Product Categories/Family for VEGFR-1/Flt-1 active protein	Soluble receptors
References	1. Barleon et al., 1997, J Biol Chem 272:10382-8 2. Röckl et al., 1998, Exp Cell Res, 241: 161-170].

NCBI AND UNIPROT INFORMATION

NCBI GI #	229892220
NCBI GeneID	2321
NCBI Accession #	NP_001153392
NCBI GenBank Nucleotide #	NM_0001159920
UniProt Accession #	P17948-2; O60722; A3E342; A3E344; A8KA71; B0LPF1; B2BF46; B2BF47; B2BF48; B3FR89; B5A923; F5H5L6; P17948
Molecular Weight	96 kDa (Monomer)
NCBI Official Full Name	vascular endothelial growth factor receptor 1 isoform 2
NCBI Official Synonym Full Names	fms-related tyrosine kinase 1
NCBI Official Symbol	FLT1
NCBI Official Synonym Symbols	FLT; FLT-1; VEGFR1; VEGFR-1
NCBI Protein Information	vascular endothelial growth factor receptor 1; fms-like tyrosine kinase 1; tyrosine-protein kinase FRT; tyrosine-protein kinase receptor FLT; vascular permeability factor receptor; fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor)
UniProt Protein Name	Vascular endothelial growth factor receptor 1
UniProt Gene Name	FLT1
UniProt Synonym Gene Names	FLT; FRT; VEGFR1; VEGFR-1; FLT-1; FLT
UniProt Entry Name	VGFR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/insect-cells-active-protein/vegfr-1-flt-1-native-soluble/14952>