Active Recombinant Mouse Flt1 Protein, Fc-tagged

Cat. No. Flt1-7210M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1(D7) (Tyr23-Asn757) fused with the Fc part of human IgG1 was expressed in insect cells.
Species	Mouse
Source	Insect Cells
Description	Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. Acts as a positive regulator of postnatal retinal hyaloid vessel regression. May play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. Can promote endothelial cell proliferation, survival and angiogenesis in adulthood. Its function in promoting cell proliferation seems to be cell-type specific. Promotes PGF-mediated proliferation of endothelial cells, and proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts. Has very high affinity for VEGFA and relatively low protein kinase activity; may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to KDR. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates phosphorylation

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	of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to the activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Phosphorylates SRC, YES1 and PLCG, and may also phosphorylate CBL. Promotes phosphorylation of AKT1 and PTK2/FAK1.
Form	Lyophilized
Bio-activity	The activity of sVEGFR-1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED50 for this effect is typically 10-30 ng/mL.
Molecular Mass	130 kDa
AA Sequence	YGSGSKLKVPELSLKGTQHVMQAGQTLFLKCRGEAAHSWSLPTTVSQEDKRLSITP PSACGRDNRQFCSTLTLDTAQANHTGLYTCRYLPTSTSKKKKAESSIYIFVSDAGSP FIEMHTDIPKLVHMTEGRQLIIPCRVTSPNVTVTLKKFPFDTLTPDGQRITWDSRRGFI IANATYKEIGLLNCEATVNGHLYQTNYLTHRQTNTILDVQIRPPSPVRLLHGQTLVLNC TATTELNTRVQMSWNYPGKATKRASIRQRIDRSHSHNNVFHSVLKINNVESRDKGLY TCRVKSGSSFQSFNTSVHVYEKGFISVKHRKQPVQETTAGRRSYRLSMKVKAFPSP EIVWLKDGSPATLKSARYLVHGYSLIIKDVTTEDAGDYTILLGIKQSRLFKNLTATLIVN VKPQIYEKSVSSLPSPPLYPLGSRQVLTCTVYGIPRPTITWLWHPCHHNHSKERYDF CTENEESFILDPSSNLGNRIESISQRMTVIEGTNKTVSTLVVADSQTPGIYSCRAFNKI GTVERNIKFYVTDVPNGFHVSLEKMPAEGEDLKLSCVVNKFLYRDITWILLRTVNNRT MHHSISKQKMATTQDYSITLNLVIKNVSLEDSGTYACRARNIYTGEDILRKTEVLVRD SEAPHLLQNLSDYEVSISGSTTLDCQARGVPAPQITWFKNNHKIQQEPGIILGPGNST LFIERVTEEDEGVYRCRATNQKGAVESAAYLTVQGTSDKSNAASDKTHTCPPCPAP ELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAK TKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE

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	PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPMLDSD GSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
N-terminal Sequence Analysis	SGSKLKD
Purity	> 95 % by SDS-PAGE and visualised by silver stain
Stability	Shelf life: one year from despatch.
Storage	Store lyophilized at 2-8 centigrade for 6 months or at -20 centigrade long term. After reconstitution store the antibody undiluted at 2-8 centigrade for one month or (in aliquots) at -20 centigrade long term. Avoid repeated freezing and thawing.
Storage Buffer	PBS, pH 7.4 without stabilizers
Reconstitution	Restore in water or medium to a concentration not lower than 50 µg/mL. The lyophilised sVEGFR-1/Fc is soluble in water and most aqueous buffers.

GENE INFORMATION

Gene Name	Flt1 FMS-like tyrosine kinase 1 [Mus musculus (house mouse)]
Official Symbol	Flt1
Synonyms	Flt1; FMS-like tyrosine kinase 1; sFl; Flt-; VEGF; Flt-1; VEGFR; sFlt1; VEGFR1; VEGFR-1; AI323757; vascular endothelial growth factor receptor 1; embryonic receptor kinase 2; tyrosine-protein kinase receptor FLT; vascular permeability factor receptor; EC 2.7.10.1

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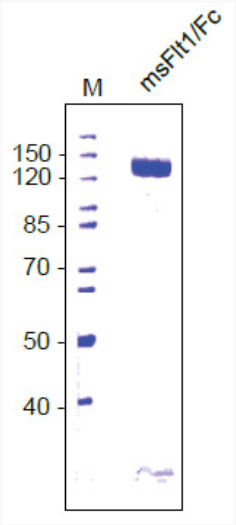
Gene ID	14254
mRNA Refseq	NM_010228
Protein Refseq	NP_034358
UniProt ID	P35969
SDS-PAGE	

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