ARG81689
Mouse sFLT1 / sVEGFR1 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81689-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81689-002	Standard	2 X 10 ng/vial	4°C
ARG81689-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81689-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81689-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81689-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81689-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81689-008	25X Wash buffer	20 ml	4°C
ARG81689-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81689-010	STOP solution	10 ml (Ready to use)	4°C
ARG81689-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81689 Mouse sFLT1 / sVEGFR1 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Mouse sFLT1 / sVEGFR1 in serum and cell culture supernatants.
Tested Reactivity	Ms
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	sFLT1 / sVEGFR1
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	78 pg/ml
Sample Type	Serum and cell culture supernatants.
Standard Range	156 - 10000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 5.6%; Inter-Assay CV: 6.9%
Alternate Names	FLT-1; Vascular permeability factor receptor; Tyrosine-protein kinase receptor FLT; FLT; Vascular endothelial growth factor receptor 1; VEGFR1; VEGFR-1; Fms-like tyrosine kinase 1; EC 2.7.10.1; Tyrosine-protein kinase FRT

Application Instructions

Assay Time	~ 5 hours

Properties

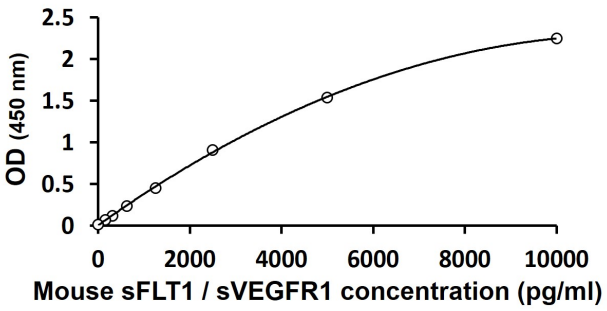
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	FLT1
Gene Full Name	fms-related tyrosine kinase 1
Background	This gene encodes a member of the vascular endothelial growth factor receptor (VEGFR) family. VEGFR family members are receptor tyrosine kinases (RTKs) which contain an extracellular ligand-binding region with seven immunoglobulin (Ig)-like domains, a transmembrane segment, and a tyrosine kinase (TK) domain within the cytoplasmic domain. This protein binds to VEGFR-A, VEGFR-B and placental growth factor and plays an important role in angiogenesis and vasculogenesis. Expression of this receptor is found in vascular endothelial cells, placental trophoblast cells and peripheral blood monocytes. Multiple transcript variants encoding different isoforms have been found for this gene. Isoforms include a full-length transmembrane receptor isoform and shortened, soluble isoforms. The soluble isoforms are associated with the onset of pre-eclampsia.[provided by RefSeq, May 2009]
Function	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. 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, proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts (in vitro). 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. Likewise, isoforms lacking a transmembrane domain, such as isoform 2, isoform 3 and isoform 4, may function as decoy receptors for VEGFA. 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 of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to 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 and YES1, and may also phosphorylate CBL. Isoform 1 phosphorylates PLCG. Promotes phosphorylation of AKT1 at 'Ser-473'. Promotes phosphorylation of PTK2/FAK1. Isoform 7 has a truncated kinase domain; it increases phosphorylation of SRC at 'Tyr-418' by unknown means and promotes tumor cell invasion. [UniProt]
Highlight	Related products: VEGFR antibodies; VEGFR ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData

PTM	N-glycosylated. Ubiquitinated after VEGFA-mediated autophosphorylation, leading to proteolytic degradation. Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-1169 is important for interaction with PLCG. Phosphorylation at Tyr-1213 is important for interaction with PIK3R1, PTPN11, GRB2, and PLCG. Phosphorylation at Tyr-1333 is important for endocytosis and for interaction with CBL, NCK1 and CRK. Is probably dephosphorylated by PTPRB. [UniProt]

Images



ARG81689 Mouse sFLT1 / sVEGFR1 ELISA Kit standard curve image

ARG81689 Mouse sFLT1 / sVEGFR1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.