

## ARG82047 Human FLT4 / VEGFR3 ELISA Kit

Package: 96 wells

Store at: 4°C

### Summary

Product Description	Human FLT4 / VEGFR3 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human FLT4 / VEGFR3 in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	FLT4 / VEGFR3
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	78 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	156 - 10000 pg/ml
Sample Volume	100 µl
Alternate Names	FLT-4; FLT41; Vascular endothelial growth factor receptor 3; VEGFR3; VEGFR-3; PCL; Tyrosine-protein kinase receptor FLT4; LMPH1A; EC 2.7.10.1; Fms-like tyrosine kinase 4

### Application Instructions

Assay Time	4.5 hours
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### 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	FLT4
Gene Full Name	fms-related tyrosine kinase 4
Background	This gene encodes a tyrosine kinase receptor for vascular endothelial growth factors C and D. The protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. Mutations in this gene cause hereditary lymphedema type IA. [provided by RefSeq, Jul 2008]
Function	Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFC and VEGFD, and plays an essential role in adult lymphangiogenesis and in the development of the vascular network and the cardiovascular system during embryonic development. Promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated FLT4 leads to enhanced production of VEGFC, and to a lesser degree VEGFA, thereby creating a positive feedback loop that enhances FLT4

signaling. Modulates KDR signaling by forming heterodimers. The secreted isoform 3 may function as a decoy receptor for VEGFC and/or VEGFD and play an important role as a negative regulator of VEGFC-mediated lymphangiogenesis and angiogenesis. Binding of vascular growth factors to isoform 1 or isoform 2 leads to the activation of several signaling cascades; isoform 2 seems to be less efficient in signal transduction, because it has a truncated C-terminus and therefore lacks several phosphorylation sites. Mediates activation of the MAPK1/ERK2, MAPK3/ERK1 signaling pathway, of MAPK8 and the JUN signaling pathway, and of the AKT1 signaling pathway. Phosphorylates SHC1. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Promotes phosphorylation of MAPK8 at 'Thr-183' and 'Tyr-185', and of AKT1 at 'Ser-473'. [UniProt]

#### Highlight

Related products:

[VEGFR antibodies](#); [VEGFR ELISA Kits](#);

New ELISA data calculation tool:

[Simplify the ELISA analysis by GainData](#)

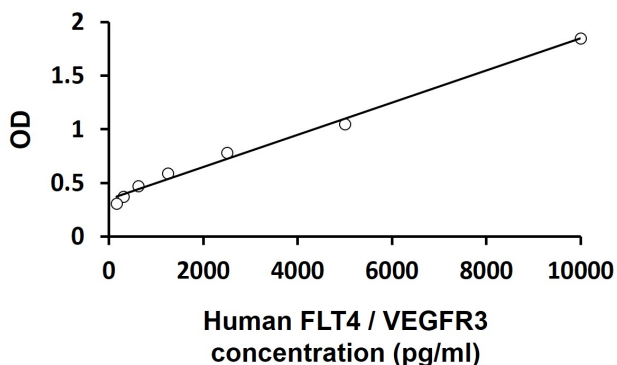
#### PTM

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 in response to H<sub>2</sub>O<sub>2</sub> is mediated by a process that requires SRC and PRKCD activity. Phosphorylation at Tyr-1068 is required for autophosphorylation at additional tyrosine residues. Phosphorylation at Tyr-1063 and Tyr-1337 is important for interaction with CRK and subsequent activation of MAPK8. Phosphorylation at Tyr-1230, Tyr-1231 and Tyr-1337 is important for interaction with GRB2 and subsequent activation of the AKT1 and MAPK1/ERK2 and/or MAPK3/ERK1 signaling pathways. In response to endothelial cell adhesion onto collagen, can also be phosphorylated in the absence of FLT4 kinase activity by SRC at Tyr-830, Tyr-833, Tyr-853, Tyr-1063, Tyr-1333, and Tyr-1337. [UniProt]

#### Cellular Localization

Cell membrane; Single-pass type I membrane protein. Cytoplasm. Nucleus. Note=Ligand-mediated autophosphorylation leads to rapid internalization. Isoform 1: Cell membrane; Single-pass type I membrane protein. Note=Ligand-mediated autophosphorylation leads to rapid internalization. Isoform 2: Cell membrane; Single-pass type I membrane protein. Isoform 3: Secreted. Cytoplasm. [UniProt]

## Images



ARG82047 Human FLT4 / VEGFR3 ELISA Kit standard curve image

ARG82047 Human FLT4 / VEGFR3 ELISA Kit results of a typical standard run with optical density reading at 450 nm.