

Product Specification Sheet

Anti-Mouse FLT-4/VEGFR3 antibodies

Cat. FLT41-A	Rabbit Anti-Mouse FLT-4 IgG # 1 (Affinity pure)	SIZE: 100 ug
Cat. FLT41-P	Mouse FLT-4 Control/blocking peptide # 1	SIZE: 100 ug

Embryonic vascular system undergoes a series of complex, highly regulated series of events involving differentiation, migration and association of primitive endothelial cells. This process is termed vasculogenesis. A further remodeling of the primitive vascular system forms the mature cardiovascular system. This process is known as angiogenesis (sprouting of new capillary vessels from pre-existing vasculature). Study of tumor angiogenesis has led to the identification of several proteins including basic fibroblast growth factor (bFGF) and vascular endothelial growth factor. VEGF acts by interacting with a family of largely endothelial-specific receptor tyrosine kinases that includes VEGFR-1 (flt-1/flk-2), VEGFR-2 (flk-1/KDR), and VEGFR-3/Flt-4. Disruption of VEGFRs interferes with differentiation of endothelial cells and it is lethal for the embryo.

FLT-4 (mouse 1363 aa and human 1298 aa), a receptor protein tyrosine kinase, is a receptor for VEGF-C. Mouse FLT-4 protein topology: 1-24 aa signal peptide, 25-1363 mature protein (25-775 EC domain, 776-797 aa TM domain, 798-1363 aa CP domain). FLT-4 is type 1 membrane protein. It is expressed in adult lung, and liver, and in fetal liver, brain, intestine, and placenta

Source of Antigen and Antibodies

Antigen	20-aa peptide of Mouse FLT4 ; Designated (FLT41-P or control peptide). conjugated to KLH; Epitope location ~ C-terminal, Cytoplasmic domain
Ab Host/type	Rabbit, polyclonal Aff pure IgG1 (cat #FLT41-A) purified over antigen-agarose column
2-ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -200C and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-10 ug/ml for affinity pure using Chemiluminescence technique). The antibodies detected ~140 kDa band in rat liver extracts.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: We recommend the use of affinity purified antibody at 2-20 ug/ml in formaldehyde fixed tissue (see refs 2).

Specificity & Cross-reactivity

Mouse FLT41-P is relatively conserved in rat (85%) and human (73%) FLT-4/VEGFR3. No significant sequence homology of FLT41-P is seen with VEGFR1 or VEGFR2 or other tyrosine kinases. Antibody crossreactivity in various species is not established. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (A detailed protocol is available at our web-site).

General References: (1) Finnerty H et al (1993) Oncogene 8, 2293-2298; Bailey SK et al (1992) Cancer Res. 52, 746-748; Pajusola K et al (1992) Cancer Res. 52, 5738-5743; Aprelikova O et al (1992) Cancer Res. 52, 746-748

List of Publications for the products and List of all related items are available at the web site.

**This product is for in vitro research use only.*

Related material available from ADI

Antibodies to Ang-1, Ang-2, Tie-1, Tie-2, Recombinant Mouse and Human VEGFs, Anti-flk-1, Flt-1, and Flt-4 (VEGFRs 1-3)

Mouse VEGF ELISA kit

FLT41-A-P 71208A