

Product Specification Sheet

Monoclonal Anti-Human FLK-1/KDR/VEGFR2 Antibodies

Cat. FLK13-MB

Biotinylated Mouse Monoclonal Anti-Human FLK-1 IgG # 3

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** or fms-like tyrosine kinase 1), VEGFR-2 (**flk-1** or fetal liver kinase-1/**KDR** or Kinase insert domain containing receptor), and VEGFR-3/Flt-4. Disruption of VEGFRs interferes with differentiation of endothelial cells and it is lethal for the embryo.

FLK-1 (Fetal-Liver Kinase 1; human homolog is **KDR**, Kinase insert domain containing receptor or **VEGF-R2**; mouse 1345 aa; rat 1343 aa, and human 1356), a putative receptor protein tyrosine kinase, is expressed in endothelial cells of developing embryo

Source of Antigen and Antibodies

Antigen	purified human recombinant FLK1
Ab Host/type	Biotin conjugated Monoclonal Anti-FLK-1/VEGF Receptor 2 is derived from the KDR-2 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with a purified human recombinant FLK1. The monoclonal antibody is purified from ascites fluid and conjugated with Sulfo-NHS-LC-Biotin. No free biotin detection in conjugate.
2-Ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (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

Buffer: 100 mM Tris, pH 7.5; 0.2% BSA 0.05% sodium azide

Reconstitute in the original vol. of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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

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

Histochemistry & Immunofluorescence: Not tested. We recommend the 1:500 or more using indirect immunoperoxidase staining of frozen human placenta section (2).

Specificity & Cross-reactivity

Mouse monoclonal FLK13-Mb (biotinylated) antibody specifically react with human FLK-1/VEGFR-2/KDR and no crossreactivity is seen with VEGFR-1/FLT-1 or FLT-4. Antibody crossreactivity in various species is not established.

General References:

Zielger, B. L et al (1999) Science 285, 1553; Oelrichs R B et al (1993) Oncogene 8, 11-18; Millauer B et al (1993) Cell 72, 835-846; Wen Y et al (1997) Gene accession # U93306; Yin LY et al (1997) Gene Acc. # AF035121; Plouet J et al (1989) EMBO J 8, 3801; Simon m et al (1998) J Am. Soc. Nephrol. Vol. 9, 1032-1044; Sait SN et al (1995) Cytogenet. Cell Genet. 70, 145; deVries C et al (1992) Science 255, 989

**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)

Western Blot recycling kit (Use the same blot to probe with multiple antibodies Ang-1 and Ang-2, etc.) **recycle blot at room temp in 5-10 min;** No mercaptoethanol or heating required).

FLK13-MB

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