Data Sheet (Cat.No.TMPY-01936)

TargetMol

VEGFR3/FLT4 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Flt-4;VEGFR-3;Chy;fms related tyrosine kinase 4;VEGFR3;AI323512
Protein Construction:	A DNA sequence encoding the mouse FLT4 (P35917-1) extracellular domain (Met 1-Glu 775) was expressed, with a polyhistidine tag at the C-terminus. Predicted N terminal: Tyr 25
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P35917-1
Molecular Weight:	86.4 kDa (predicted); 95-105 kDa (non-reduced condition, due to glycosylation)

QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. 2. Immobilized mouse VEGFR3-His at 10 μg/mL (100 μl/well) can bind mouse Fc-VEGFD, The EC50 of mouse Fc-VEGFD is 44 ng/mL.
Purity:	≥ 97 % as determined by SDS-PAGE ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Vascular endothelial growth factor receptor 3 (VEGFR3), also known as FLT-4, together with the other two members VEGFR1 (FLT-1) and VEGFR2 (KDR/Flk-1) are receptors for vascular endothelial growth factors (VEGF) and belong to the class III subfamily of receptor tyrosine kinases (RTKs). The VEGFR3 protein is expressed mainly on lymphatic vessels but it is also up-regulated in tumor angiogenesis. Mutations in VEGFR3 have been identified in

patients with primary lymphoedema. The VEGF-C/VEGF-D/VEGFR3 signaling pathway may provide a target for antilymphangiogenic therapy in prostate cancer, breast cancer, gastric cancer, lung cancer, non-small cell lung cancer (NSCLC), and so on.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

Shushanov S,et al.(2000)VEGFc and VEGFR3 expression in human thyroid pathologies. Int J Cancer.86(1): 47-52.
Iljin K,et al.(2001) VEGFR3 gene structure, regulatory region, and sequence polymorphisms. FASEB J. 15(6): 1028-36.
Liu XE,et al.(2004) Expression and significance of VEGF-C and FLT-4 in gastric cancer. World J Gastroenterol. 10(3): 352-5.
Stearns ME,et al.(2004) Expression of a flt-4 (VEGFR3) splicing variant in primary human prostate tumors. VEGF D and flt-4t(Delta773-1081) overexpression is diagnostic for sentinel lymph node metastasis. Lab Invest. 84(6): 785-95.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481