Data Sheet (Cat.No.TMPY-03200)

TargetMol

VEGFD Protein, Rat, Recombinant (hFc)

General Information

Synonyms:	c-fos induced growth factor (vascular endothelial growth factor D)
Protein Construction:	A DNA sequence encoding the rat FIGF (NP_113949.1)(Phe94-Arg210) was expressed, fused with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	O35251
Molecular Weight:	41.6 kDa (predicted); 52 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA. Immobilized recombinant Rat VEGF-Dprotein at 10 μg/mL (100 μl/well) can bind biotinylated mouse VEGFR3-Fc with a linear range of 31.25-2000 ng/mL.
Purity:	> 85 % as determined by SDS-PAGE
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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Vascular endothelial growth factor D (VEGF-D), also known as C-fos induced growth factor (FIGF), belongs to the platelet-derived growth factor/vascular endothelial growth factor (PDGF/VEGF) family. FIGF protein is active in angiogenesis, lymphangiogenesis, and endothelial cell growth. FIGF protein is secreted as a non-covelent homodimer in an antiparallel fashion. Human FIGF protein is expressed in adult lung, heart, muscle, and small

intestine, and is most abundantly expressed in fetal lungs and skin. FIGF protein is structurally and functionally similar to VEGF-C. Therefore, FIGF protein binds and activates VEGFR-2 (Flk1) and VEGFR-3 (Flt4) receptors, and may particularly be involved in cancers, such as breast cancer, epithelial ovarian carcinoma and so on.

Reference

Avantaggiato V, et al. (1998) Embryonic expression pattern of the murine figf gene, a growth factor belonging to platelet-derived growth factor/vascular endothelial growth factor family. Mech Dev. 73(2):221-4.
Rocchigiani M, et al. (1998) Human FIGF: cloning, gene structure, and mapping to chromosome Xp22.1 between the PIGA and the GRPR genes. Genomics 47(2):207-16.
Karpanen T, et al. (2008) VEGF-D: a modifier of embryonic lymphangiogenesis. Blood. 112(5): 1547-8.

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