Data Sheet (Cat.No.TMPY-03150)

TargetMol

VEGFD Protein, Mouse, Recombinant (His)

General Information

Synonyms:	VEGF-D;Vegfd;AI325264;c-fos induced growth factor (vascular endothelial growth factor D)
Protein Construction:	A DNA sequence encoding the mouse FIGF (P97946) (Phe98-Ser206) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Phe 98
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P97946
Molecular Weight:	14 kDa (predicted); 22 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to bind with mouse FLT4-Fc in a functional ELISA.
Purity:	> 95 % 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.

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 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.