

Active Recombinant Human ANGPTL4 protein, His-tagged

Cat. No. ANGPTL4-268H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human ANGPTL4(Gly26-Arg161) fused with 3xGSL and a C-terminal 6-His tag was expressed in CHO.

Species Human

Source CHO

ProteinLength 26-161 a.a.

Description

Angiopoietin-like 4 (ANGPTL4), also known as FIAF, FARP, and PGAR, is a 55 kDa glycoprotein secreted by the liver and fat tissue. It is structurally related to the angioipoietins and contains an N-terminal coiled coil domain and a C-terminal fibrinogen-like domain which can be proteolytically separated in vivo. Within the N-terminal region, it shares approximately 67% aa sequence identity with mouse and rat ANGPTL4. The coiled coil domain, which is not glycosylated, mediates the formation of variable sized disulfide-linked oligomers. This domain directly inhibits lipoprotein lipase, resulting in increased circulating triglyceride levels. In human, the N-terminal fragment and full length ANGPTL4 physically associate with HDL. In mouse, however, full length ANGPTL4 associates with HDL, while the N-terminal fragment associates with LDL. Circulating ANGPTL4 is decreased in type II diabetics with a subsequent loss of its normal plasma glucose lowering activity. Its expression in adipose tissue is induced by fasting and suppressed by feeding . In hypoxic areas, ANGPTL4 is induced in both vascular endothelial cells and tumor cells. The N-terminal fragment can function as an angiogenesis inhibitor. In contrast, the C-

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terminal fragment modulates cell adhesion through interactions with heparan sulfate proteoglycans, Integrins beta 1 and beta 5, Vitronectin, and Fibronectin, thereby promoting keratinocyte migration and wound healing. ANGPTL4 additionally enhances the survival of hematopoietic and mesenchymal stem cells. The expression of an undersialylated form of ANGPTL4 in renal podocytes contributes to proteinuria and nephrotic syndrome.

Predicted N Terminal Gly26

Form Lyophilized from a 0.2 µm filtered solution in MOPS, NaCl and CHAPS.

Bio-activity Measured by its ability to promote the expansion of E16 rat liver mononuclear cells in vitro, in the presence of Recombinant Mouse SCF/c-kit Ligand, Recombinant Mouse Thrombopoietin/Tpo, and Recombinant Mouse Flt-3 Ligand. The ED50 for this effect is typically 25-125 ng/mL in the presence of a cross-linking antibody, Mouse Anti-polyHistidine Monoclonal Antibody.

Molecular Mass Predicted Molecular Mass: 17 (unlabeled) kDa

Endotoxin <0.1 EU per 1 µg of the protein by the LAL method.

Purity >85%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
 12 months from date of receipt, -20 to -70 centigrade as supplied.
 1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

Reconstitution Reconstitute at 100 µg/mL in PBS.

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GENE INFORMATION

Gene Name [ANGPTL4 angiopoietin-like 4 \[Homo sapiens \]](#)

Official Symbol [ANGPTL4](#)

Synonyms [ANGPTL4](#); [angiopoietin-like 4](#); [angiopoietin-related protein 4](#); [angiopoietin related protein 4](#); [ARP4](#); [fasting induced adipose factor](#); [FIAF](#); [hepatic angiopoietin related protein](#); [hepatic fibrinogen/angiopoietin related protein](#); [HFARP](#); [NL2](#); [peroxisome proliferator activated receptor \(PPAR\) gamma induced angiopoietin related protein](#); [PGAR](#); [pp1158](#); [PPARG angiopoietin related protein](#); [angiopoietin-like protein 4](#); [fasting-induced adipose factor](#); [hepatic angiopoietin-related protein](#); [hepatic fibrinogen/angiopoietin-related protein](#); [peroxisome proliferator-activated receptor \(PPAR\) gamma induced angiopoietin-related protein](#); [ANGPTL2](#);

Gene ID [51129](#)

mRNA Refseq [NM_001039667](#)

Protein Refseq [NP_001034756](#)

UniProt ID [Q9BY76](#)

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