Active Recombinant Human ANGPTL4 Protein, His-tagged, Biotinylated

Cat. No. ANGPTL4-160H **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 NS0, Biotinylated.
Species	Human
Source	Mammalian Cells
ProteinLength	Gly26-Arg161
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 angoipoietins and contains an N-terminal coiled coil domain and a C-terminal fibrinogen-like domain which can be proteolytically separated in vivo. Mature human ANGPTL4 shares 26% - 30% amino acid (aa) sequence identity with ANGPTL1, 2, 3, 5, 6, and 7. It shares approximately 75% aa sequence identity with mouse and rat ANGPT-L4. 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 humans, 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,

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	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-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 25-1
Molecular Mass	17 kDa (unlabeled)
Endotoxin	<0.10 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.
Notes	Structure / Form: Oligomer Biotinylated via sugars
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.

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	3 months, -20 to -70 centigrade under sterile
Reconstitution	Reconstitute at 100 µg/mL in PBS.
Conjugation	Biotin

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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