Active Recombinant Mouse Angptl3 Protein, His-tagged, Biotinylated

Cat. No. Angptl3-173M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Angptl3(Ser17-Thr206) fused with His tag at C-terminal was expressed in CHO, Biotinylated.
Species	Mouse
Source	CHO
ProteinLength	Ser17-Thr206
Description	Angiopoietin-like Protein 3 (ANGPTL3) is a secreted glycoprotein that is structurally related to the angiopoietins. Mature mouse ANGPTL3 contains an N-terminal coiled coil domain and a C-terminal fibrinogen-like domain. Mature mouse ANGPTL3 shares 77% aa sequence identity with human ANGPTL3. ANGPTL3 is expressed in the liver from early in development through adulthood. Full length ANGPTL3 circulates in the plasma as do the proteolytically separated N- and C-terminal fragments containing the coiled coil domain and fibrinogen-like domains, respectively. The cleavage of ANGPTL3 by Furin and Proprotein Convertase 5/6 is enhanced by its interaction with the related ANGPTL8. ANGPTL3 is found as 70 kDa, 50 kDa, and 32 kDa species and can form weakly associated noncovalent multimers in vitro. ANGPTL3 directly inhibits lipoprotein lipase (LPL) and endothelial lipase (EL), enzymes responsible for hydrolyzing circulating triglycerides and HDL phospholipids. This activity requires a putative heparin-binding motif which is N-terminal to the coiled coil domain. Proteolytic removal of the fibrinogen-like domain from the N-terminal fragment serves

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	to activate ANGPTL3 and increase its ability to inhibit LPL in vitro and function in vivo [Ono 41804]. ANGPTL3 promotes an increase in circulating triglyceride levels without altering VLDL or HDL secretion or uptake. ANGPTL3 knockout mice are hypolipidemic and have elevated LPL activity. ANGPTL3 expression in vivo is upregulated by LXR agonists and downregulated by insulin, leptin, and agonists of TR beta or PPAR beta. Dysregulated ANGPTL3 expression and elevated plasma triglyceride levels are characteristic of some strains of obese and diabetic mice. ANGPTL3 does not bind Tie1 or Tie2, but its fibrinogen-like domain interacts with Integrin alpha V beta 3 to induce endothelial cell adhesion, migration, and neovascularization. ANGPTL3, secreted by fetal liver cells, also promotes the expansion of hematopoietic stem cells.
Predicted N Terminal	Ser17
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 20-120 ng/mL in the presence of a cross linking antibody, Mouse Anti-polyHistidine Monoclonal Antibody.
Molecular Mass	23 kDa (unlabeled)
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE with silver staining
Notes	Structure / Form: Biotinylated protein via sugars

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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.
Conjugation	Biotin

GENE INFORMATION

Gene Name	Angptl3 angiopoietin-like 3 [Mus musculus]
Official Symbol	Angptl3
Synonyms	ANGPTL3; angiopoietin-like 3; angiopoietin-related protein 3; hypolipidemia; angiopoietin-like protein 3; hypl;
Gene ID	30924
mRNA Refseq	NM_013913
Protein Refseq	NP_038941
UniProt ID	Q9R182

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