

Human ANGPTL4 Protein (His Tag)

Catalog Number: 10563-H07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ANGPTL2; ARP4; FIAF; HARP; HFARP; NL2; PGAR; pp1158; TGQTL; UNQ171

Protein Construction:

A DNA sequence encoding the human ANGPTL4 (Q9BY76) (Pro166-Ser406) was expressed with an N-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human ANGPTL4 comprises 261 amino acids and has a predicted molecular mass of 29.5 kDa. The apparent molecular mass of the protein is approximately 35 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

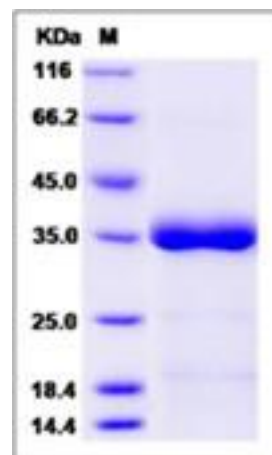
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

ANGPTL4, also known as ANGPTL2, is a protein with hypoxia-induced expression in endothelial cells. It contains 1 fibrinogen C-terminal domain and is expressed at high levels in the placenta, heart, liver, muscle, pancreas and lung but expressed poorly in the brain and kidney. ANGPTL4 inhibits proliferation, migration, and tubule formation of endothelial cells and reduces vascular leakage. It may act as a regulator of angiogenesis and modulate tumorigenesis. It inhibits proliferation, migration, and tubule formation of endothelial cells and reduces vascular leakage. It may also exert a protective function on endothelial cells through an endocrine action. ANGPTL4 is directly involved in regulating glucose homeostasis, lipid metabolism, and insulin sensitivity. In response to hypoxia, the unprocessed form of the protein accumulates in the subendothelial extracellular matrix (ECM). The matrix-associated and immobilized unprocessed form limits the formation of actin stress fibers and focal contacts in the adhering endothelial cells and inhibits their adhesion. It also decreases motility of endothelial cells and inhibits the sprouting and tube formation.

References

1. Lichtenstein L, *et al.* (2010) Angptl4 Protects against Severe Proinflammatory Effects of Saturated Fat by Inhibiting Fatty Acid Uptake into Mesenteric Lymph Node Macrophages. *Cell metabolism*. 12(6): 580-92.
2. Terada S, *et al.* (2011) Escaping Anoikis through ROS: ANGPTL4 controls integrin signaling through Nox1. *Cancer Cell*. 19(3):297-9.
3. Zhu PC, *et al.* (2011) Angptl4 protein elevates the prosurvival intracellular O₂(-):H₂O₂ ratio and confers anoikis resistance to tumors. *Cancer Cell*. 19(3):401-15.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

Global Customer: Fax :+86-10-5862-8288 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>