

Recombinant Human Angiopoietin-like 4, His-tagged

Cat. No. ANGPTL4-118H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ANGPTL4 produced in <i>E.coli</i> manufactured with N-terminal fusion of His Tag. The Angiopoietin-like Protein 4 His-Tagged Fusion Protein is 25 kDa protein containing 204 amino acid residues of the Angiopoietin-like Protein 4 and 16 additional amino acid residues - His Tag.
Species	Human
Source	E.coli
Description	The fasting-induced adipose factor (FIAF, ANGPTL4, PGAR, HFARP) was identified as an adipocytokine up-regulated by fasting, by peroxisome proliferator-activated receptor agonists, and by hypoxia. At the protein level, in human and mouse blood plasma, FIAF was found to be present both as a native protein and in a truncated form. Differentiation of mouse 3T3-L1 adipocytes was associated with the production of truncated FIAF, whereas in human white adipose tissue and SGBS adipocytes, only the native FIAF could be detected. Interestingly, the truncated FIAF was produced by human liver. Experimental data suggest that FIAF is mainly presented in human blood plasma in a truncated form (FIAF-S2), whose level is increased by fenofibrate treatment. Levels of both truncated and native FIAF showed marked inter individual variation but were not associated with body mass index and were not influenced by prolonged semistarvation.
Amino Acid Sequence	MRGSHHHHHH GMASHMGPVQ SKSPRFASWD EMNVLAHGLL QLGQGLREHA ERTRSQLSAL ERRLSACGSA CQGTEGSTDL PLAPESRVDP EVLHSLQTQL

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KAQNSRIQQL FHKVAQQQRH LEKQHLRIQH LQSQFGLLDH KHLDEHVAKP
ARRKRLPEMA QPVDPAHNVS RLHRLPRDCQ ELFQVGERQS GLFEIQPQGS
PPFLVNCKMT SDGGWTVIQR

Specificity

The amino acid sequence of the recombinant Human Angiopoietin-like Protein 4 is 100% homologous to the 26-229 amino acid sequence of the Angiopoietin-like Protein-4 precursor without signal sequence.

Purification Method

One-step procedure using affinity Ni-NTA chromatography.

Purity

Greater than 95% as determined by SDS-PAGE.

Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH-4.

Solubility

Add 0.2 ml of 0.1M Acetate buffer pH4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10µg/ml. In higher concentrations the solubility of this antigen is limited.

Biological Activity

The biological activity was determined by the induction of endothelial cell sprouting as described in Korff et al., 2001.

Protein Content

Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 1.4 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of ANG-2 as a Reference Standard.

Applications

Western blotting, ELISA.

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Storage

Store lyophilized Angiopoietin-like Protein 4 at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C. The lyophilized protein remains stable until the expiry date when stored at -20°C.

GENE INFORMATION
Gene Name

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

Synonyms

ANGPTL4; angiopoietin-like 4; NL2; ARP4; FIAF; PGAR; HFARP; pp1158; ANGPTL2; fasting-induced adipose factor; PPARG angiopoietin related protein; hepatic angiopoietin-related protein; hepatic fibrinogen/angiopoietin-related protein; peroxisome proliferator-activated receptor (PPAR) gamma; induced angiopoietin-related protein; angiopoietin-related protein 4; PSEC0166, UNQ171/PRO197

Gene ID

[51129](#)

mRNA Refseq

[NM_001039667](#)

Protein Refseq

[NP_001034756](#)

MIM

[605910](#)

UniProt ID

[Q9BY76](#)

**Chromosome
Location**

19p13.3

Pathway

PPAR signaling pathway; Metabolism of lipids and lipoproteins

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Function	enzyme inhibitor activity; receptor binding
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