

ANGPTL3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6711a**Specification**

ANGPTL3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q9Y5C1](#)**ANGPTL3 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 27329**Other Names**

Angiopoietin-related protein 3, Angiopoietin-5, ANG-5, Angiopoietin-like protein 3, ANGPTL3, ANGPT5

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6711a](/products/AP6711a) was selected from the N-term region of human ANGPTL3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ANGPTL3 Antibody (N-term) Blocking Peptide - Protein Information**Name** ANGPTL3**Synonyms** ANGPT5**Function**

Acts in part as a hepatokine that is involved in regulation of lipid and glucose metabolism (PubMed: [11788823](http://www.uniprot.org/citations/11788823), PubMed: [12909640](http://www.uniprot.org/citations/12909640), PubMed: [23661675](http://www.uniprot.org/citations/23661675), PubMed: [25495645](http://www.uniprot.org/citations/25495645)). Proposed to play a role in the trafficking of energy substrates to either storage or oxidative tissues in response to food intake (By similarity). Has a stimulatory effect on plasma triglycerides (TG), which is achieved by suppressing plasma TG clearance via inhibition of LPL activity. The inhibition of LPL activity appears to be an indirect mechanism involving recruitment of proprotein

convertases PCSK6 and FURIN to LPL leading to cleavage and dissociation of LPL from the cell surface; the function does not require ANGPTL3 proteolytic cleavage but seems to be mediated by the N- terminal domain, and is not inhibited by GPIHBP1 (PubMed:12097324, PubMed:19318355, PubMed:20581395). Can inhibit endothelial lipase, causing increased plasma levels of high density lipoprotein (HDL) cholesterol and phospholipids (PubMed:17110602, PubMed:19028676). Can bind to adipocytes to activate lipolysis, releasing free fatty acids and glycerol (PubMed:12565906). Suppresses LPL specifically in oxidative tissues which is required to route very low density lipoprotein (VLDL)-TG to white adipose tissue (WAT) for storage in response to food; the function may involve cooperation with circulating, liver-derived ANGPTL8 and ANGPTL4 expression in WAT (By similarity). Contributes to lower plasma levels of low density lipoprotein (LDL)-cholesterol by a mechanism that is independent of the canonical pathway implicating APOE and LDLR. May stimulate hypothalamic LPL activity (By similarity).

Cellular Location

Secreted {ECO:0000250, ECO:0000305|PubMed:11877390}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9R182}. Note=Colocalized with HSPG2 and activated ITGB3 on podocytes. {ECO:0000250|UniProtKB:Q9R182}

Tissue Location

Expressed principally in liver. Weakly expressed in kidney. Binds to adipocytes. Increased expression and colocalization with activated ITGB3 in glomeruli of patients with nephrotic syndrome showing effaced podocyte foot processes (at protein level)

ANGPTL3 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

ANGPTL3 Antibody (N-term) Blocking Peptide - Images

ANGPTL3 Antibody (N-term) Blocking Peptide - Background

ANGPTL3 is a member of the angiopoietin-like family of secreted factors. It is predominantly expressed in the liver, and has the characteristic structure of angiopoietins, consisting of a signal peptide, N-terminal coiled-coil domain and the C-terminal fibrinogen (FBN)-like domain. The FBN-like domain in angiopoietin-like 3 protein was shown to bind alpha-5/beta-3 integrins, and this binding induced endothelial cell adhesion and migration. This protein may also play a role in the regulation of angiogenesis.

ANGPTL3 Antibody (N-term) Blocking Peptide - References

Shan,L., J. Biol. Chem. 284 (3), 1419-1424 (2009)Shimamura,M., Biochem. Biophys. Res. Commun. 301 (2), 604-609 (2003)