Angiopoietin-Like Protein 3 Human, Rabbit Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E. coli*  
Host: Rabbit  
Cat. No.: RD181092100 (0.1 mg)

Other names: Angiopoietin-related protein 3, Angiopoietin-5, ANG-5, ANGPT5, UNQ153/PRO179, ANGPTL-3

Research topic
Animal studies, Energy metabolism and body weight regulation, Oncology

Preparation
The antibody was raised in rabbits by immunization with the recombinant Human ANGPTL3.

Amino Acid Sequence
The immunization antigen (26 kDa) is a protein containing 223 AA of recombinant Human ANGPTL3. N-Terminal His-tag, 16 extra AA (highlighted).

MRGSHHHHHH GMASHM SRID QDSSSFDSLSS PEKFSRFAML DDRKILANGL LGQGHALKDF VHKTKQIND IFQKLNIDQ SFYDLSLQTS EIKEEKEKLRTTYYKQVKN EEVKMSLEL NSKLESLLLK EEIQQQTVGKY LEELQNLITIQ NQPETPEHPE  
VTSLKFVVEK QDSSKDLQLQ TVEDQKQYLN QQLSQQKIEEIE NQLRRTSIOQ PTEISLSKFP RAP

The amino acid sequence of the recombinant Human ANGPTL3 is 100% homologous to the amino acid sequence of the Human ANGPTL3 (AA 17-223) without signal sequence.

Species Reactivity
Human
Not yet tested in other species.

Purification Method
Immunoaffinity chromatography on a column with immobilized recombinant Human ANGPTL3.

Antibody Content
0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation
The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2, AZIDE FREE.

Reconstitution
Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Storage/Stability
The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration
See vial label.

Lot Number
See vial label.

Quality Control Test
Indirect ELISA - to determine titer of the antibody
Introduction to the Molecule
Angiopoietin-like proteins ANGPTL3 and ANGPTL4 are secreted proteins mainly expressed in liver that have been demonstrated to regulate triglyceride metabolism by inhibiting the lipolysis of triglyceride-rich lipoproteins. ANGPTL3 is structurally similar to angiopoietins, which are vascular endothelial growth factors. 

The experimental results show that Angptl3 and Angptl4 function to regulate circulating triglyceride levels during different nutritional states and therefore play a role in lipid metabolism during feeding/fasting through differential inhibition of Lipoprotein lipase (LPL).

Using deletion mutants of human ANGPTL3, it was demonstrated that the N-terminal domain containing fragment - (17-207) and not the C-terminal fibrinogen-like domain containing fragment - (207-460) increased the plasma triglyceride levels in mice. The fasting-induced adipocyte 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.

References to this Product

Note
This product is for research use only.