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Anti-ANGPTL3 Picoband Antibody

Catalog # ABO10269

Product Information

Application	WB
Primary Accession	Q9Y5C1
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for ANGPTL3 detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	27329
Other Names	Angiopoietin-related protein 3, Angiopoietin-5, ANG-5, Angiopoietin-like protein 3, ANGPTL3(17-221), ANGPTL3(17-224), ANGPTL3, ANGPT5
Calculated MW	53637
Application Details	Western blot, 0.1-0.5 □g/ml
Subcellular Localization	Secreted.
Tissue Specificity	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).
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
Immunogen	A synthetic peptide corresponding to a sequence of human ANGPTL3 (RFAMLDDVKILANGLLQLGHGLKDFVHKTKGQINDIFQKLN).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C; for one year. After r˚Constitution, at 4˚C; for one month. It˚Can also be aliquotted and stored frozen at -20˚C; for a longer time. Avoid repeated freezing and thawing.

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, PubMed:12909640, PubMed:23661675, PubMed: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)

Background

ANGPTL3 (Angiopoietin-Like 3), also known as ANGPT5, is a protein which in humans is encoded by the ANGPTL3 gene. The protein encoded by this gene is a member of the angiopoietin-like family of secreted factors. By radiation hybrid mapping and the use of surrounding genes, this gene is mapped to chromosome 1p31. 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. Angptl3 also acts as dual inhibitor of lipoprotein lipase (LPL) and endothelial lipase (EL), and increases plasma triglyceride and HDL cholesterol in rodents. ANGPTL3 inhibit endothelial lipase to catalyze HDL-phospholipid and increase HDL-PL levels.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.