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ANGPTL4 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9207c

Specification

ANGPTL4 Antibody (Center) - Product Information

Application	**IHC-P, WB, FC,E**
Primary Accession	Q9BY76
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**138-167**

ANGPTL4 Antibody (Center) - Additional Information

Gene ID 51129

Other Names
Angiopoietin-related protein 4, Angiopoietin-like protein 4, Hepatic fibrinogen/angiopoietin-related protein, HFARP, ANGPTL4, ARP4, HFARP, PGAR

Target/Specificity
This ANGPTL4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 138-167 amino acids from the Central region of human ANGPTL4.

Dilution
IHC-P~~1:50~100
WB~~1:1000
FC~~1:25
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ANGPTL4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ANGPTL4 Antibody (Center) - Protein Information

Name ANGPTL4

Synonyms ARP4, HFARP, PGAR {ECO:0000303|PubMed:10

Function Mediates inactivation of the lipoprotein lipase LPL, and thereby plays a role in the regulation of triglyceride clearance from the blood serum and in lipid metabolism (PubMed:19270337, PubMed:21398697, PubMed:27929370, PubMed:29899144). May also play a role in regulating glucose homeostasis and insulin sensitivity (Probable). Inhibits proliferation, migration, and tubule formation of endothelial cells and reduces vascular leakage (PubMed:14583458, PubMed:17068295). Upon heterologous expression, inhibits the adhesion of endothelial cell to the extracellular matrix (ECM), and inhibits the reorganization of the actin cytoskeleton, formation of actin stress fibers and focal adhesions in endothelial cells that have adhered to ANGPTL4-containing ECM (in vitro) (PubMed:17068295). Depending on context, may modulate tumor-related angiogenesis (By similarity).

Cellular Location
Secreted. Secreted, extracellular space, extracellular matrix. Note=The unprocessed form interacts with the extracellular matrix (PubMed:17068295, PubMed:21398697). This may constitute a dynamic reservoir, a regulatory mechanism of the bioavailability of ANGPTL4 (Probable).

Tissue Location
Detected in blood plasma (at protein level) (PubMed:29899519). Detected in liver (PubMed:10698685). Detected in white fat tissue and placenta (PubMed:10866690). Expressed at high levels in the placenta, heart, liver, muscle, pancreas and lung but expressed poorly in the brain and kidney.

ANGPTL4 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ANGPTL4 Antibody (Center) - Images

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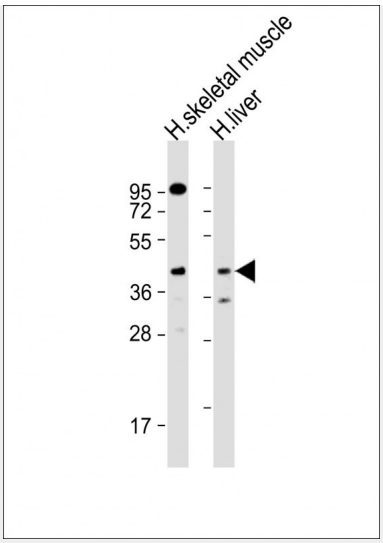
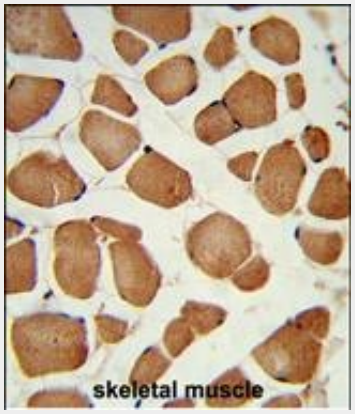
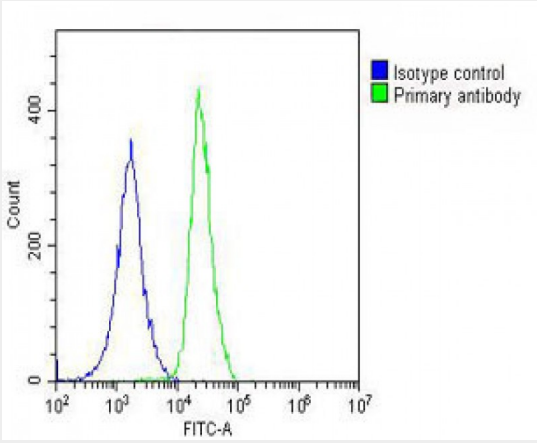


All lanes : Anti-ANGPTL4 Antibody (Center) at 1:1000 dilution Lane 1: human skeletal muscle lysate Lane 2: human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with ANGPTL4 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Overlay histogram showing A549 cells stained with AP9207c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The

cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP9207c, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

ANGPTL4 Antibody (Center) - Background

ANGPTL4 is a member of the angiopoietin/angiopoietin-like gene family and encodes a glycosylated, secreted protein with a fibrinogen C-terminal domain. This protein is induced under hypoxic conditions in endothelial cells and is the target of peroxisome proliferation activators. The encoded protein is a serum hormone directly involved in regulating glucose homeostasis, lipid metabolism, and insulin sensitivity and also acts as an apoptosis survival factor for vascular endothelial cells. The encoded protein may play a role in several cancers and it also has been shown to prevent the metastatic process by inhibiting vascular activity as well as tumor cell motility and invasiveness. Decreased expression of this protein has been associated with type 2 diabetes.

ANGPTL4 Antibody (Center) - References

Maxwell,T.J., et.al., Int J Mol Sci 11 (1), 370-385 (2010)
Legry,V., et.al, J. Clin. Endocrinol. Metab. 94 (12), 5070-5077 (2009)
Sonnenburg,W.K., et.al, J. Lipid Res. 50 (12), 2421-2429 (2009)

ANGPTL4 Antibody (Center) - Citations

- The downregulation of ANGPTL4 inhibits the migration and proliferation of tongue squamous cell carcinoma.
- Establishment of monoclonal HCC cell lines with organ site-specific tropisms.