abcam

ab206420

Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR19873
Purification technique	Affinity purification Protein A
Concentration	0.771 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/700
Notes	-

Target data

See full target information ANGPTL4

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). ANGPTL4 N-terminal chain. Mediates inactivation of the lipoprotein lipase LPL, and thereby plays an important role in the regulation of triglyceride clearance from the blood serum and in lipid metabolism (PubMed:19270337, PubMed:21398697, PubMed:27929370, PubMed:29899144). Has higher activity in LPL inactivation than the uncleaved protein (PubMed:19270337, PubMed:21398697).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Angiopoietin-like 4 also known as ANGPTL4 like4 or ANGPTL4 protein is a glycoprotein with an approximate mass of 50 kDa. It plays a role in lipid metabolism by inhibiting lipoprotein lipase which reduces the breakdown of triglycerides. ANGPTL4 protein is secreted by liver adipose tissue and placenta showing expression in response to fasting and during low insulin states. This expression pattern connects its function to energy homeostasis and metabolic regulation.
Biological function summary	ANGPTL4 protein influences processes such as lipid metabolism angiogenesis and wound healing. It does not integrate into a large protein complex but functions independently to exert its effects. Inhibition of lipoprotein lipase by ANGPTL4 decreases adipose tissue fat storage and modulates plasma lipid levels. This modulation plays a critical role in maintaining energy balance and glucose homeostasis particularly under metabolic stress conditions.
Pathways	The functionality of ANGPTL4 protein intersects with the PPAR (Peroxisome Proliferator-Activated Receptor) signaling pathway and the glucose homeostasis pathway. It interacts with other proteins such as PPAR-alpha and PPAR-gamma which regulate genes involved in fatty acid oxidation and lipid transport. This

	interaction influences the body's response to fasting and caloric restriction by altering lipid metabolism and ensuring efficient energy use.
Associated diseases and disorders	ANGPTL4 protein correlates with cardiovascular diseases and cancer. Elevated levels of ANGPTL4 associate with an increased risk for atherosclerosis due to its role in lipid metabolism disturbance. In cancer particularly gastric cancer ANGPTL4 influences tumor metastasis by promoting angiogenesis. Its effects on these diseases link to proteins like VEGF in angiogenesis and other metabolic regulators in cardiovascular conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

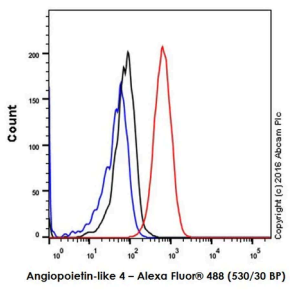
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

6 product images

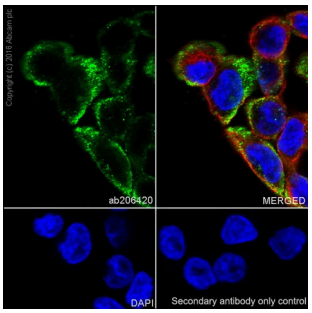


Flow Cytometry (Intracellular) - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Angiopoietin-like 4/ANGPTL4 Flow Cytometry (Intracellular) staining using rabbit Anti-Angiopoietin-like 4/ANGPTL4 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HT-29 (human colorectal adenocarcinoma cell line) cells labeling Angiopoietin-like 4/ANGPTL4 with ab206420 at 1/700 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an

unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluorr® 488) at 1/2000 dilution was used as the secondary antibody.

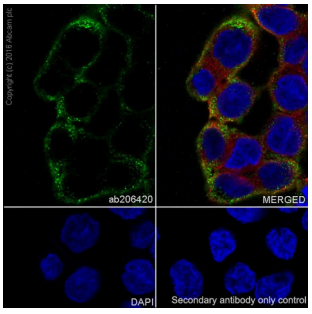


Immunocytochemistry/ Immunofluorescence - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Angiopoietin-like 4/ANGPTL4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Angiopoietin-like 4/ANGPTL4 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HT-29 (human colorectal adenocarcinoma cell line) cells labeling Angiopoietin-like 4/ANGPTL4 with ab206420 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HT-29 cell line. The nuclear counterstain is DAPI (blue).
Alpha-Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.

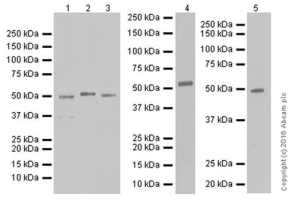


Immunocytochemistry/ Immunofluorescence - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Angiopoietin-like 4/ANGPTL4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Angiopoietin-like 4/ANGPTL4 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SW480 (human colorectal adenocarcinoma cell line) cells labeling Angiopoietin-like 4/ANGPTL4 with ab206420 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on SW480 cell line. The nuclear counterstain is DAPI (blue).
Alpha-Tubulin is detected with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/1000 dilution.



Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Angiopoietin-like 4/ANGPTL4 Western blot staining using rabbit Anti-Angiopoietin-like 4/ANGPTL4 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure time: Lane 1-4: 3 minutes; Lane 5: 5 seconds.

Angiopoietin-like 4/ANGPTL4 can be cleaved at 161-164 site and this immunogen recognize full length 50KD and C-Terminal fragment 35KD. (PMID:19270337; PMID:10862772).

Lanes 1 - 3:
Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420) at 1/2000 dilution

Lanes 4 - 5:

Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420) at 1/1000 dilution

Lane 1:
A549 (human lung carcinoma cell line) whole cell lysate at 10 µg

Lane 2:
SW480 (human colorectal adenocarcinoma cell line) whole cell lysate at 10 µg

Lane 3:
THP-1 (human monocytic leukemia cell line) whole cell lysate at 10 µg

Lane 4:
Human kidney lysate at 10 µg

Lane 5:
Human fetal kidney lysate at 10 µg

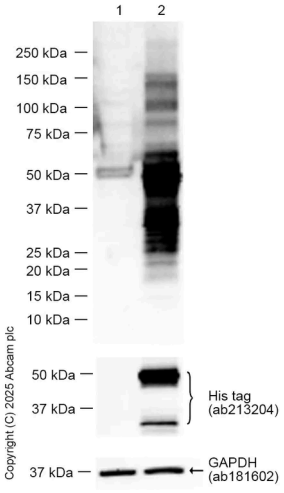
Secondary

Lanes 1 - 3:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 4 - 5:
Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 45 kDa

Observed band size: 35 kDa, 50 kDa



Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Angiopoietin-like 4/ANGPTL4 Western blot staining using rabbit Anti-Angiopoietin-like 4/ANGPTL4 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Lanes 1 - 2:
Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420) at 1/1000 dilution

Lanes 1 - 2:
Western blot - Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) at 1/5000 dilution

Lane 1:
293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a His tag whole cell lysate at 20 µg

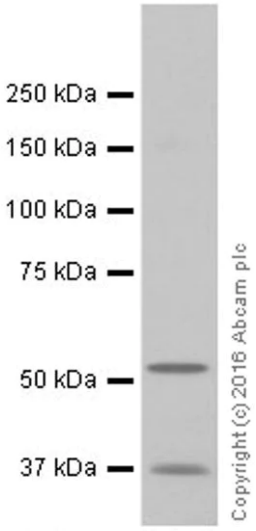
Lane 2:
293T cells transfected with a human ANGPTL4 expression vector containing a His-tag whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 35 kDa, 50 kDa

Exposure time: 3s



Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Angiopoietin-like 4/ANGPTL4 antibody [EPR19873] (ab206420) at 1/1000 dilution

All lanes:
HT-29 (human colorectal adenocarcinoma cell line) whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Predicted band size: 45 kDa

Observed band size: 35 kDa, 50 kDa

Exposure time: 1min

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