abcam

ab185194

Anti-PCSK9 antibody [EPR17827-117]

Anti-PCSK9 antibody [EPR17827-117] (ab185194) is a rabbit monoclonal antibody detecting PCSK9 in **Western Blot, Flow Cytometry (Intra), IP, ICC/IF**. Suitable for **Mouse**.

- Biophysical QC for unrivalled batch-batch consistency

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	EPR17827-117
Purification technique	Affinity purification Protein A
Concentration	0.52 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	1/30

Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Target data

See full target information Pcsk9

Function	Crucial player in the regulation of plasma cholesterol homeostasis. Binds to low-density lipid receptor family members: low density lipoprotein receptor (LDLR), very low density lipoprotein receptor (VLDLR), apolipoprotein E receptor (LRP1/APOER) and apolipoprotein receptor 2 (LRP8/APOER2), and promotes their degradation in intracellular acidic compartments. Acts via a non-proteolytic mechanism to enhance the degradation of the hepatic LDLR through a clathrin LDLRAP1/ARH-mediated pathway. May prevent the recycling of LDLR from endosomes to the cell surface or direct it to lysosomes for degradation. Can induce ubiquitination of LDLR leading to its subsequent degradation. Inhibits intracellular degradation of APOB via the autophagosome/lysosome pathway in a LDLR-independent manner. Involved in the disposal of non-acetylated intermediates of BACE1 in the early secretory pathway. Inhibits epithelial Na(+) channel (ENaC)-mediated Na(+) absorption by reducing ENaC surface expression primarily by increasing its proteasomal degradation. Regulates neuronal apoptosis via modulation of LRP8/APOER2 levels and related anti-apoptotic signaling pathways.

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

What is this antibody validated in?
Anti-PCSK9 antibody [EPR17827-117] (ab185194) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunocytochemistry/immunofluorescence (ICC/IF) in Mouse samples.

What is the molecular weight of PCSK9?
Anti-PCSK9 [EPR17827-117] (ab185194) specifically detects a band for PCSK9 (UniProt: Q80W65) at a molecular weight of 74kDa.

Other related products
We have a range of other formats of antibody clone [EPR17827-117] also available for your convenience: ab185194, Carrier free - ab242847, Carrier free - ab246322, Alexa Fluor® 488 - ab319077, Alexa Fluor® 647 - ab322020

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	Proprotein convertase subtilisin/kexin type 9 (PCSK9) is a protein responsible for the regulation of cholesterol levels by binding to low-density lipoprotein receptors (LDLR) on hepatocytes. This interaction marks the LDLRs for degradation reducing the liver's ability to clear LDL cholesterol from the blood. PCSK9 has a molecular weight of approximately 74 kDa. The protein is mainly expressed in the liver but is also found in the intestine and kidneys. PCSK9 is referred to as NARC-1 standing for neural apoptosis-regulated convertase 1 highlighting its role in the liver's cholesterol management system.
Biological function summary	PCSK9 influences cholesterol homeostasis by its important role in degrading LDL receptors. It functions independently rather than as part of larger protein complexes. PCSK9 gains particular interest in therapeutic contexts where its inhibition can lead to increased LDLR levels and enhanced clearance of LDL cholesterol. Biotinylated PCSK9 and mouse PCSK9 variants provide significant tools for experimental study. Kits such as the PCSK9 ELISA kit enable detailed measurement of PCSK9 levels in blood samples providing insights into cholesterol metabolism dynamics.
Pathways	PCSK9 operates within the lipid metabolism pathway and the cholesterol biosynthesis pathway. The protein's activity affects the fate of LDL cholesterol within these pathways. It interacts with proteins such as apolipoprotein B (ApoB) which plays a central role in the structural component of LDL particles. The modulation of these pathways by PCSK9 highlights the significance of its function in maintaining cardiovascular health and managing cholesterol levels.
Associated diseases and disorders	PCSK9 is closely linked to hypercholesterolemia and coronary artery disease. Mutations in PCSK9 can lead to autosomal dominant hypercholesterolemia due to its effect on LDL receptor degradation. Other proteins such as ApoB and LDLR are involved in these conditions tightly interacting with PCSK9's regulatory function. A better understanding of PCSK9's role offers potential therapeutic targets for

cardiovascular disease interventions especially through the development of PCSK9 antibodies and PCSK9 assays that adjust cholesterol levels.

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

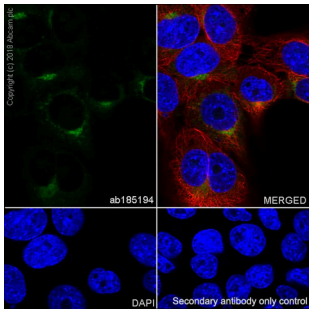
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

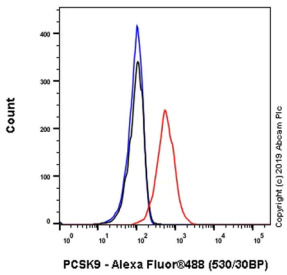


Immunocytochemistry/ Immunofluorescence - Anti-PCSK9 antibody [EPR17827-117] (ab185194)

PCSK9 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PCSK9 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Hepa1-6 (mouse hepatoma epithelial cell line) cells labeling PCSK9 with ab185194 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 in Hepa1-6 cell line is observed.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

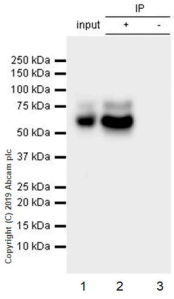
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is an Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-PCSK9 antibody [EPR17827-117] (ab185194)

PCSK9 Flow Cytometry (Intracellular) staining using rabbit Anti-PCSK9 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized Hepa1-6 (mouse hepatoma epithelial cell line) cell line labeling PCSK9 with ab185194 at 1/500 dilution (red) compared with aRabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-PCSK9 antibody [EPR17827-117] (ab185194)

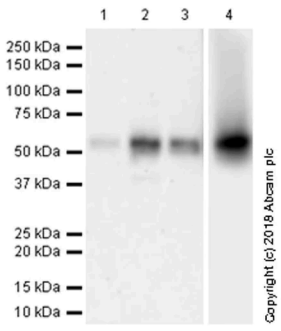
PCSK9 was immunoprecipitated from 0.35 mg Hepa1-6 (mouse hepatoma epithelial cell line) whole cell lysate with ab185194 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab185194 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/5000 dilution.
Lane 1: Hepa1-6 whole cell lysate 10 µg (input).
Lane 2: ab185194 IP in Hepa1-6 whole cell lysate (+).
Lane 3: Rabbit monoclonal IgG in Hepa1-6 whole cell lsyate (-).

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 5 seconds.

78-kDa band represents proPCSK9 (PMID: 25210046).

All lanes:
Immunoprecipitation - Anti-PCSK9 antibody [EPR17827-117] (ab185194)

Predicted band size: 74 kDa



Western blot - Anti-PCSK9 antibody [EPR17827-117] (ab185194)

PCSK9 Western blot staining using rabbit Anti-PCSK9 antibody

Exposure time : Lanes 1-3:3 minutes; Lane 4:6 seconds.
Blocking/diluting buffer and concentration: 5% NFDM/TBST

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 26092101).

All lanes:
Western blot - Anti-PCSK9 antibody [EPR17827-117] (ab185194) at 1/1000 dilution

Lane 1:
Mouse kidney tissue lysate at 20 µg

Lane 2:
Mouse liver tissue lysate at 20 µg

Lane 3:
Mouse placenta tissue lysate at 20 µg

Lane 4:

Hepa1-6 (mouse hepatoma epithelial cell line) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 74 kDa

Observed band size: 60 kDa

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