

PCSK9 Antibody

Rabbit Polyclonal Antibody Catalog # ABV11266

Specification

PCSK9 Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Isotype IHC, WB <u>Q8NBP7</u> Human Rabbit Polyclonal Rabbit IgG

PCSK9 Antibody - Additional Information

Gene ID 255738

Positive Control

Western blot: A549, HeLa, U87, PANC Cell Lysate. IHC-P: Human Intestinal Cancer Tissue.

Application & Usage WB, IHC-P Other Names PCSK9, FH3, HCHOLA3, LDLCQ1, NARC1, PC9, FH3; NARC-1; HCHOLA3; PC9; Proprotein convertase 9; Subtilisin/kexin-like protease PC9; Hypercholesterolemia, autosomal dominant 3; Neural apoptosis-regulated convertase 1;

Target/Specificity PCSK-9

Antibody Form Liquid

Appearance Lyophilized powder

Formulation Lyophilized from 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Thimerosal and 0.05 mg NaN3.

Handling The antibody solution should be gently mixed before use.

Reconstitution & Storage -20 °C

Background Descriptions



Precautions

PCSK9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PCSK9 Antibody - Protein Information

Name PCSK9

Synonyms NARC1

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 (PubMed:18039658). 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 ubiguitination of LDLR leading to its subsequent degradation (PubMed: 18799458, PubMed:17461796, PubMed:18197702, PubMed:22074827). 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 (PubMed:18660751). 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.

Cellular Location

Cytoplasm. Secreted. Endosome. Lysosome. Cell surface. Endoplasmic reticulum. Golgi apparatus. Note=Autocatalytic cleavage is required to transport it from the endoplasmic reticulum to the Golgi apparatus and for the secretion of the mature protein Localizes to the endoplasmic reticulum in the absence of LDLR and colocalizes to the cell surface and to the endosomes/lysosomes in the presence of LDLR. The sorting to the cell surface and endosomes is required in order to fully promote LDLR degradation

Tissue Location

Expressed in neuro-epithelioma, colon carcinoma, hepatic and pancreatic cell lines, and in Schwann cells

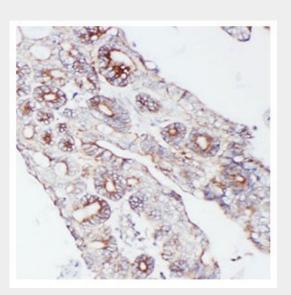
PCSK9 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety



• <u>Cell Culture</u> PCSK9 Antibody - Images



IHC (P) with PCSK9 Antibody: Human Intestinal Cancer Tissue. Antigen retrieval was done by boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins.

1	2	3	4	- 250KD
	-	Ŭ		— 130KD
				— 100KD
-		-	-	— 70KD
				— 55КD
				— 35KD
				— 25KD
				— 15KD

Western blot analysis with PCSK9 Antibody. Lane 1: A549 Cell Lysate; Lane 2: HeLa cell Lysate; Lane 3: U87 Cell Lysate; Lane 4: PANC Cell Lysate

PCSK9 Antibody - Background

Proprotein convertase subtilisin/kexin type 9 (PCSK9), is an enzyme which in humans is encoded by the PCSK9 gene. This gene encodes a proprotein convertase belonging to the proteinase K subfamily of the secretory subtilase family. This protein plays a major regulatory role in cholesterol homeostasis. PCSK9 binds to the epidermal growth factor-like repeat A (EGF-A) domain of the low-density lipoprotein receptor (LDLR), inducing LDLR degradation. PCSK9 may also have a role in the differentiation of cortical neurons. Mutations in this gene have been associated with a rare form of autosomal dominant familial hypercholesterolemia (HCHOLA3).