

Anti-PCSK9 Antibody

Catalog # ABO11438

Specification

Anti-PCSK9 Antibody - Product Information

Application Primary Accession Host Reactivity Clonality Format Description WB, IHC-P <u>O8NBP7</u> Rabbit Human Polyclonal Lyophilized

Rabbit IgG polyclonal antibody for Proprotein convertase subtilisin/kexin type 9(PCSK9) detection. Tested with WB, IHC-P in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PCSK9 Antibody - Additional Information

Gene ID 255738

Other Names Proprotein convertase subtilisin/kexin type 9, 3.4.21.-, Neural apoptosis-regulated convertase 1, NARC-1, Proprotein convertase 9, PC9, Subtilisin/kexin-like protease PC9, PCSK9, NARC1

Calculated MW 74286 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μg/ml, Human, By Heat
>Western blot, 0.1-0.5 μg/ml, Human
>

Subcellular Localization

Cytoplasm. Secreted. Endosome. Lysosome. Cell surface. Endoplasmic reticulum. Golgi apparatus. 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 Specificity

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

Protein Name Proprotein convertase subtilisin/kexin type 9

Contents



Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human PCSK9(671-687aa AVTAVAICCRSRHLAQA).

Purification Immunogen affinity purified.

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.

Sequence Similarities Belongs to the peptidase S8 family.

Anti-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 ubiquitination of LDLR leading to its subsequent degradation (PubMed: 17461796, PubMed:18197702, PubMed:18799458. 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

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Anti-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
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>

Anti-PCSK9 Antibody - Images



Anti-PCSK9 antibody, ABO11438, Western blottingAll lanes: Anti PCSK9 (ABO11438) at 0.5ug/mlLane 1: A549 Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: U87 Whole Cell Lysate at 40ugLane 4: PANC Whole Cell Lysate at 40ugPredicted bind size: 74KDObserved bind size: 74KD





Anti-PCSK9 antibody, ABO11438, IHC(P)IHC(P): Human Intestinal Cancer Tissue Anti-PCSK9 Antibody - Background

Proprotein convertase subtilisin/kexin type 9, also known as PCSK9, is an enzyme that 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. By genomic sequence analysis, PCSK9 was mapped to chromosome 1p32. This gene is a crucial player in the regulation of plasma cholesterol homeostasis. It may prevent the recycling of LDLR from endosomes to the cell surface or direct it to lysosomes for degradation. PCSK9 can induce ubiquitination of LDLR leading to its subsequent degradation. This gene is involved in the disposal of non-acetylated intermediates of BACE1 in the early secretory pathway.