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PCSK9 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7333b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	Q8NBP7
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	74286
Antigen Region	479-508

Additional Information

Gene ID	255738
Other Names	Proprotein convertase subtilisin/kexin type 9, 3421-, Neural apoptosis-regulated convertase 1, NARC-1, Proprotein convertase 9, PC9, Subtilisin/kexin-like protease PC9, PCSK9, NARC1
Target/Specificity	This PCSK9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 479-508 amino acids from the C-terminal region of human PCSK9.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	PCSK9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

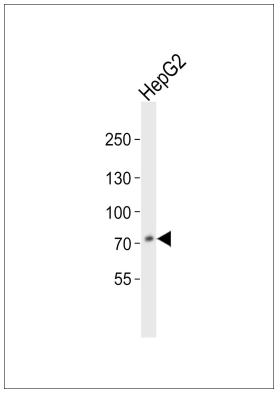
Background

PCSK9 is a proprotein convertase belonging to the proteinase K subfamily of the secretory subtilase family. This protein is synthesized as a soluble zymogen that undergoes autocatalytic intramolecular processing in the endoplasmic reticulum. The protein may function as a proprotein convertase. The protein plays a role in cholesterol homeostasis and may have a role in the differentiation of cortical neurons.

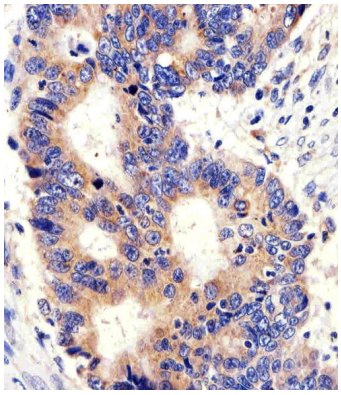
References

Abifadel,M., Rabes,J.P. Hum. Mutat. 30 (7), E682-E691 (2009)
McNutt,M.C., Kwon,H.J. J. Biol. Chem. 284 (16), 10561-10570 (2009)
Shioji,K., Mannami,T. J. Hum. Genet. 49 (2), 109-114 (2004)
Abifadel,M., Varret,M. Nat. Genet. 34 (2), 154-156 (2003)

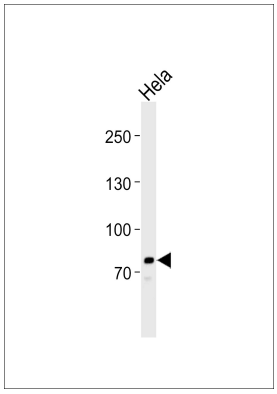
Images



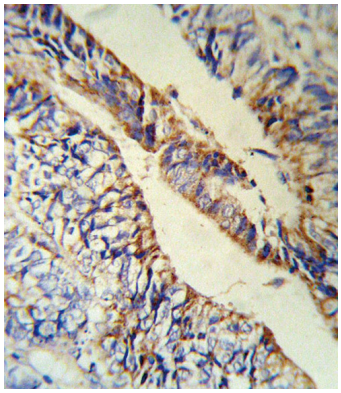
Western blot analysis of lysate from HepG2 cell line, using PCSK9 Antibody (C-term)(Cat. #AP7333b). AP7333b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



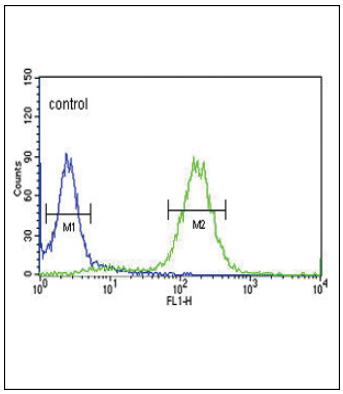
Immunohistochemical analysis of paraffin-embedded H.colon carcinoma section using PCSK9 Antibody (C-term)(Cat#AP7333b). AP7333b was diluted at 1:100 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Western blot analysis of lysate from Hela cell line, using PCSK9 Antibody (C-term)(Cat. #AP7333b). AP7333b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 35ug.



PCSK9 Antibody (C-term) (RB18880) IHC analysis in formalin fixed and paraffin embedded human Colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PCSK9 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



PCSK9 Antibody (C-term) (Cat. #AP7333b) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.