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PCSK9 (16F15) Rabbit Monoclonal Antibody

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Catalog # AP93780

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	Q80W65
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	74823

Additional Information

Gene ID	100102
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
Dilution	WB~~1:1000 IF~~1:50~200 FC~~1:10~50 ICC~~N/A IP~~N/A
Storage Conditions	-20℃

Protein Information

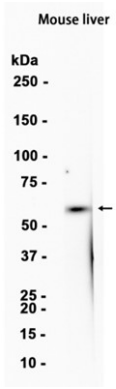
Name	Pcsk9
Synonyms	Narc1
Function	Crucial player in the regulation of plasma cholesterol homeostasis. Binds to low-density lipid receptor family members: low density lipoprotein receptor (LDLR), very low density lipoprotein receptor (VLDLR), apolipoprotein E receptor (LRP1/APOER) and apolipoprotein receptor 2 (LRP8/APOER2), and promotes their degradation in intracellular acidic compartments. 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.
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 co-localizes 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 (By similarity).
Tissue Location	Hepatocytes, kidney mesenchymal cells, intestinal ileum, colon epithelia and embryonic brain telencephalon neurons

Background

Enables apolipoprotein binding activity; lipoprotein particle binding activity; and low-density lipoprotein particle receptor binding activity. Involved in several processes, including cellular response to insulin stimulus; cellular response to starvation; and regulation of neuron apoptotic process. Acts upstream of or within several processes, including low-density lipoprotein receptor particle metabolic process; regulation of low-density lipoprotein particle receptor catabolic process; and triglyceride metabolic process. Located in COPII-coated ER to Golgi transport vesicle; endoplasmic reticulum; and extracellular space. Is expressed in several structures, including alimentary system; cerebellum; genitourinary system; liver; and telencephalon. Human ortholog(s) of this gene implicated in familial hypercholesterolemia and hypobetalipoproteinemia. Orthologous to human PCSK9 (proprotein convertase subtilisin/kexin type 9). [provided by Alliance of Genome Resources, Apr 2022]

Images



Western blot analysis of extracts from Mouse liver tissue using AP93780 at 1:1000.