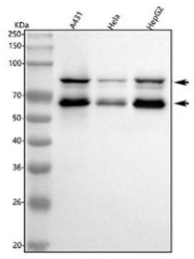
PCSK9 Monoclonal Antibody ABFB-16 / Proprotein Convertase 9 Rabbit Monoclonal Antibody [clone ABFB-16] (FY13694)

Catalog No.	Formulation	Size
FY13694	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol	100 ul

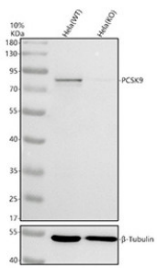
Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ABFB-16
Purity	Antigen affinity purified
UniProt	Q8NBP7
Applications	Western blot: 1:500
Limitations	This PCSK9 Monoclonal Antibody ABFB-16 / Proprotein Convertase 9 Rabbit Monoclonal Antibody is available for research use only.



PCSK9 Monoclonal Antibody ABFB-16 WB Analysis of A431, HeLa and HepG2 Cell Lysates. Western blot analysis of human A431 (lane 1), HeLa (lane 2), and HepG2 (lane 3) whole-cell lysates using Proprotein Convertase 9 Rabbit Monoclonal Antibody clone ABFB-16. Immunoreactive bands are detected at approximately 65 kDa and 80-85 kDa, consistent with the mature and precursor forms of PCSK9, respectively.



PCSK9 Monoclonal Antibody ABFB-16 WB Analysis of HeLa Wild-Type and PCSK9 Knockout Cells. Western blot analysis of human HeLa wild-type (lane 1) and PCSK9 knockout (lane 2) whole-cell lysates using Proprotein Convertase 9 Rabbit Monoclonal Antibody clone ABFB-16 at a 1:500 dilution. An immunoreactive band at approximately 75-80 kDa is detected in wild-type cells but is absent from the knockout sample, supporting PCSK9-specific recognition. Beta Tubulin serves as the loading control. Each lane contains 30 ug of protein.

Description

PCSK9 Monoclonal Antibody ABFB-16 / Proprotein Convertase 9 Rabbit Monoclonal Antibody targets proprotein convertase subtilisin/kexin type 9 (PCSK9), a secreted protein that plays a central role in cholesterol homeostasis by regulating low-density lipoprotein receptor (LDLR) abundance. PCSK9 belongs to the subtilisin-like proprotein convertase family but differs from most family members in its primary physiological function. Rather than processing numerous extracellular protein substrates, mature PCSK9 acts predominantly through interactions with cell surface receptors. Its ability to control LDLR degradation makes it an important determinant of circulating low-density lipoprotein cholesterol (LDL-C) concentrations.

PCSK9 is synthesized as an inactive precursor containing an N-terminal signal peptide, an inhibitory prodomain, a catalytic domain, and a C-terminal cysteine-histidine-rich domain. During maturation in the endoplasmic reticulum, PCSK9 undergoes autocatalytic cleavage between its prodomain and catalytic domain. The cleaved prodomain remains tightly associated with the mature protein, preventing additional proteolytic activity while supporting proper folding and secretion. This processing generates distinct precursor and mature molecular forms that can be detected during studies of PCSK9 biosynthesis and intracellular trafficking.

Following secretion, PCSK9 binds the epidermal growth factor-like repeat A domain of LDLR. The resulting complex is internalized through receptor-mediated endocytosis, after which PCSK9 promotes lysosomal degradation of LDLR rather than allowing efficient receptor recycling. Reduced LDLR availability limits cellular uptake of circulating LDL particles and contributes to increased plasma cholesterol concentrations. PCSK9 expression is regulated by sterol regulatory element-binding protein 2 (SREBP2), which coordinates genes involved in cholesterol synthesis and uptake. Nutritional conditions, hormonal signals, and inflammatory pathways also influence PCSK9 production and activity.

Genetic studies have established a direct relationship between PCSK9 function and cardiovascular disease risk. Gain-of-function variants increase LDLR degradation and can cause familial hypercholesterolemia, whereas loss-of-function variants reduce LDL-C concentrations and are associated with protection against coronary artery disease. These discoveries established PCSK9 as an important therapeutic target and stimulated research into its regulation, processing, and receptor interactions. PCSK9 Monoclonal Antibody ABFB-16 supports investigation of this protein's expression and maturation, including its involvement in LDL receptor turnover and lipid metabolism.

Explore our PCSK9 Antibody for additional research into PCSK9 expression, LDL receptor regulation, and cholesterol metabolism, with Western blot validation using HeLa wild-type and PCSK9 knockout cell lysates.

Application Notes

Optimal dilution of the PCSK9 Monoclonal Antibody ABFB-16 / Proprotein Convertase 9 Rabbit Monoclonal Antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Proprotein Convertase 9 was used as the immunogen for the PCSK9 Monoclonal Antibody ABFB-16.

Storage

The PCSK9 Monoclonal Antibody ABFB-16 can be stored at -20oC.

Alternate Names

Proprotein convertase subtilisin/kexin type 9 antibody, Proprotein convertase 9 antibody, Proprotein convertase subtilisin kexin 9 antibody, Neural apoptosis-regulated convertase 1 antibody, NARC-1 antibody, NARC1 antibody, PC9 antibody, Subtilisin-like proprotein convertase 9 antibody, PCSK9 protein antibody, PCSK9 precursor antibody, Proprotein

convertase PC9 antibody

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