

# PCSK9 (F-8): sc-515082

## BACKGROUND

Proprotein convertase subtilisin/kexin type 9 (PCSK9), also known as NARC-1, is a 692 amino acid protein that belongs to the peptidase S8 family and contains one peptidase S8 domain. Important in the regulation of plasma cholesterol homeostasis, PCSK9 binds to low-density lipoprotein receptor family members LDLR, very low-density lipoprotein receptor (VLDLR) and apolipoprotein receptor 2 (ApoER2) and promotes their degradation in intracellular acidic compartments. PCSK9 also plays a role in neuronal differentiation and apoptosis. PCSK9 is expressed in Schwann cells, neuro-epithelioma, colon carcinoma, and hepatic and pancreatic cell lines. PCSK9 levels in the brain are highest in the cerebellum during perinatal development, with ischemia causing increased levels in the adult brain. Defects in the gene encoding this protein causes the autosomal dominant disorder familial hypercholesterolemia 3 (FH3).

## CHROMOSOMAL LOCATION

Genetic locus: PCSK9 (human) mapping to 1p32.3.

## SOURCE

PCSK9 (F-8) is a mouse monoclonal antibody raised against amino acids 175-334 mapping within an internal region of PCSK9 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PCSK9 (F-8) is available conjugated to agarose (sc-515082 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515082 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515082 PE), fluorescein (sc-515082 FITC), Alexa Fluor® 488 (sc-515082 AF488), Alexa Fluor® 546 (sc-515082 AF546), Alexa Fluor® 594 (sc-515082 AF594) or Alexa Fluor® 647 (sc-515082 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515082 AF680) or Alexa Fluor® 790 (sc-515082 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

PCSK9 (F-8) is recommended for detection of PCSK9 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PCSK9 siRNA (h): sc-45482, PCSK9 shRNA Plasmid (h): sc-45482-SH and PCSK9 shRNA (h) Lentiviral Particles: sc-45482-V.

Molecular Weight (predicted) of PCSK9 isoforms: 74/21 kDa.

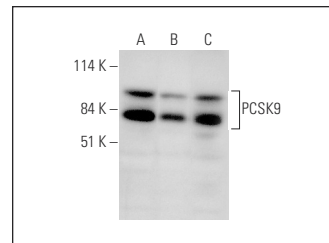
Molecular Weight (observed) of PCSK9: 71-90 kDa.

Positive Controls: HCT-116 whole cell lysate: sc-364175, Hep G2 cell lysate: sc-2227 or SW480 cell lysate: sc-2219.

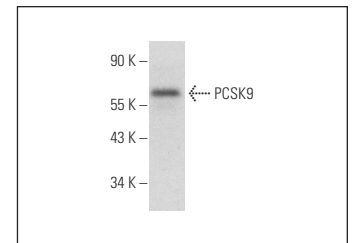
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



PCSK9 (F-8): sc-515082. Western blot analysis of PCSK9 expression in HCT-116 (A), SW480 (B) and Hep G2 (C) whole cell lysates.



PCSK9 (F-8): sc-515082. Western blot analysis of PCSK9 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

- He, B. and Moreau, R. 2020. R-α-lipoic acid and 4-phenylbutyric acid have distinct hypolipidemic mechanisms in hepatic cells. *Biomedicines* 8: 289.
- Lee, G.E., et al. 2021. Role of proprotein convertase subtilisin/kexin type 9 in the pathogenesis of Graves' orbitopathy in orbital fibroblasts. *Front. Endocrinol.* 11: 607144.
- Xia, Z.J., et al. 2022. COG4 mutation in Saul-Wilson syndrome selectively affects secretion of proteins involved in chondrogenesis in chondrocyte-like cells. *Front. Cell Dev. Biol.* 10: 979096.
- Rebollo-Hernanz, M., et al. 2022. Selected soybean varieties regulate hepatic LDL-cholesterol homeostasis depending on their glycinin:β-conglycinin ratio. *Antioxidants* 12: 20.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.