

Anti-PCSK9 [3D2] Standard Size Ab02937-10.0

Isotype and Format: Human IgG1, Kappa

Clone Number: 3D2

Alternative Name(s) of Target: NARC1; NARC-1; PC9; Proprotein convertase subtilisin/kexin type; Neural apoptosis-regulated convertase 1; Proprotein convertase 9; Subtilisin/kexin-like protease PC9

UniProt Accession Number of Target Protein: Q8NBP7

Published Application(s): BLI, functional assay, inhibit, therapeutic, Block, ELISA

Published Species Reactivity: Human

Immunogen: The original antibody was isolated from an scFv phage display library generated from blood, bone marrow, and cord blood samples from healthy donors by panning against recombinant PCSK9.

Specificity: This antibody binds PCSK9 and blocks the PCSK9-LDLR interaction in a dose-dependent manner with an IC₅₀ of 2.25±1.23 nM (PMID: 33416098). Proprotein convertase subtilisin/kexin type 9 (PCSK9) is a serine protease enzyme encoded by the PCSK9 gene in humans and it plays a role in regulation of circulating cholesterol. It is associated with autosomal dominant hypercholesterolemia, a state of elevated levels of LDL (low-density lipoprotein) cholesterol. Autosomal dominant hypercholesterolemia can result in severe implications such as stroke and coronary heart disease.

Application Notes: Indirect binding ELISA were performed to assess the specificity of this antibody against PCSK9. Biolayer interferometry analysis suggested that IgG1 version of this antibody had a binding affinity of 1.96±1.56X10⁻¹⁰ M towards PCSK9. In vitro, the PCSK9/low-density lipoprotein receptor (LDLR) pathway of Hep-G2 cells was inhibited by 3D2 treatment, thereby increasing LDL uptake in these cells. In addition, combination treatment with 3D2 and statin was more effective at increasing LDLR levels than treatment with 3D2 or statin alone. Furthermore, in mice treatment with this antibody resulted in a 3-fold increase in hepatic LDLR levels, and lowered total serum cholesterol by up to 61.5% in vivo (PMID: 33416098).

Antibody First Published in: Dong et al. Construction and application of a human scFv phage display library based on Cre-LoxP recombination for anti-PCSK9 antibody selection. Int J Mol Med. 2021 Feb;47(2):708-718. [PMID:33416098](#)

Note on publication: Describes the generation of this antibody using phage display technology.

Product Form

Size: 200 µg Purified antibody.

Purification:

Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.