

Biotinylated Human PCSK9 (D374Y) Protein, Avitag™,His Tag

Catalog # PCY-H82E7



Synonym

PCSK9, FH3, HCHOLA3, LDLCQ1, NARC1, PC9

Source

MABSol® Biotinylated Human PCSK9 (D374Y), Avitag,His Tag (PCY-H82E7) is expressed from human HEK293 cells. It contains AA Gln 31 - Gln 692 (Accession # [Q8NBP7-1](#) (D374Y)).

Predicted N-terminus: Gln 31

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. This protein undergoes autocatalytic cleavage to release the pro-peptide and mature chain. The pro-peptide and mature chain are associated through non-covalent interactions and with a calculated MW of 13.8 kDa and 59.9 kDa respectively. The protein migrates as 15kDa, 65kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation. The D374Y mutation results in higher affinity of PCSK9 for LDLR.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

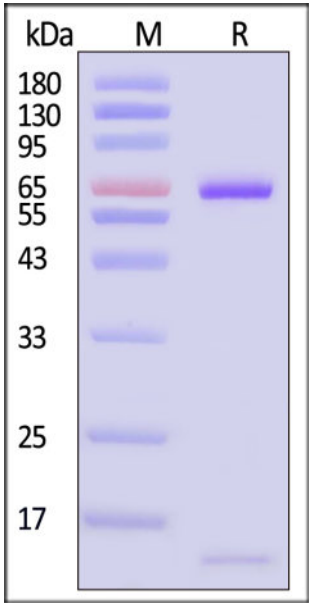
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

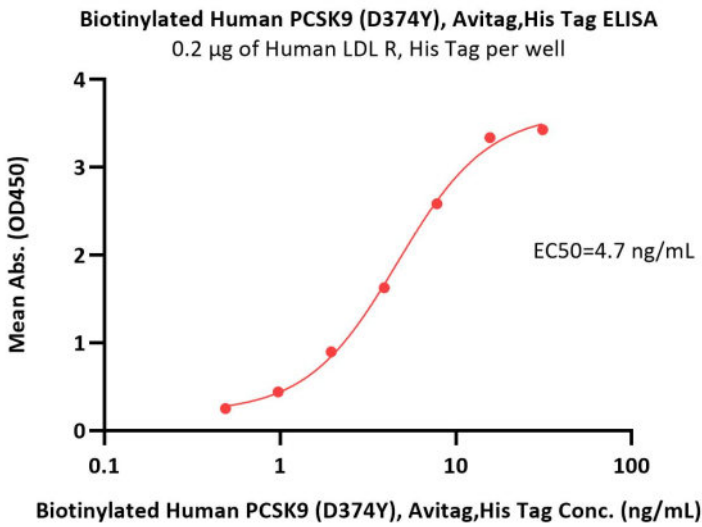
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE

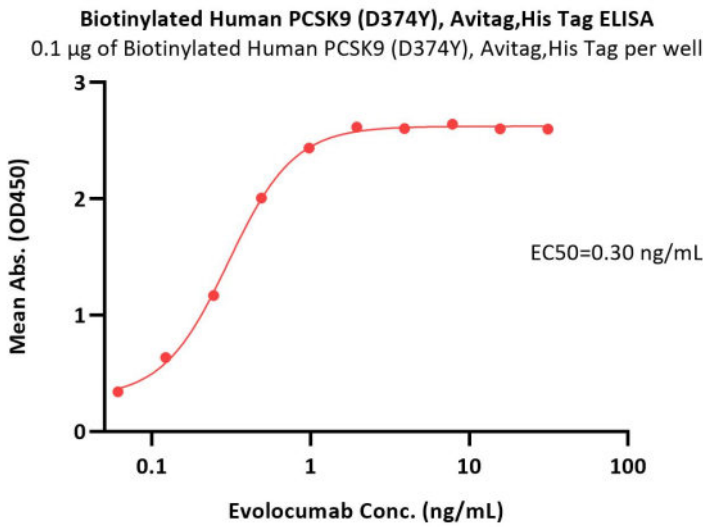


Biotinylated Human PCSK9 (D374Y), Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



Immobilized Human LDL R, His Tag (Cat. No. LDR-H5224) at 2 µg/mL (100 µL/well) can bind Biotinylated Human PCSK9 (D374Y), Avitag,His Tag (Cat. No. PCY-H82E7) with a linear range of 0.2-8 ng/mL (QC tested).



Immobilized Biotinylated Human PCSK9 (D374Y), Avitag,His Tag (Cat. No. PCY-H82E7) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Evolocumab with a linear range of 0.1-1 ng/mL (Routinely tested).

Background

Proprotein convertase subtilisin/kexin type 9 (PCSK9) is also known as NARC1 (neural apoptosis regulated convertase), is a newly identified subtilase belonging to the peptidase S8 subfamily. Mouse PCSK9 is synthesized as a soluble zymogen, and undergoes autocatalytic intramolecular processing in the endoplasmic reticulum, resulting in the cleavage of its propeptide that remains associated with the secreted active enzyme with a broad alkaline pH optimum. This protein plays a major regulatory role in cholesterol homeostasis. PCSK9 binds to the epidermal growth factor-like repeat A (EGF-A) domain of the low-density lipoprotein receptor (LDLR), inducing LDLR degradation. PCSK9 may also have a role in the differentiation of cortical neurons. Mutations in this gene have been associated with a rare form of autosomal dominant familial hypercholesterolemia (HCHOLA3).



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