

Human PCSK9 / NARC1 (D374Y) Protein (His Tag)

Catalog Number: 29698-H08H1



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FH3; HCHOLA3; LDLQC1; NARC-1; NARC1; PC9

Protein Construction:

A DNA sequence encoding the human PCSK9 (NP_777596.2, with mutation Asp 374 Tyr) (Met1-Gln692) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized Human LDLR mFc (Cat: 10231-H05H) at 2 µg/ml (100 µl/well) can bind Human PCSK9(D374Y) His(Cat: 29698-H08H1), the EC50 of PCSK9 (D374Y) His is 1-20 ng/mL.

2. Loaded Recombinant Human LDLR/LDL Receptor Protein, mFc Tag (Cat. No. 10231-H05H) on ProA Biosensor, can bind Recombinant Human PCSK9 (D374Y) Protein, His Tag (Cat. No. 29698-H08H1) with an affinity constant of 2.57nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

3. Immobilized Recombinant Human LDLR/LDL Receptor Protein (Fc Tag) (Cat: 10231-H02H) at 2 µg/mL (100µL/well) can bind Recombinant Human PCSK9 / NARC1 (D374Y) Protein (His Tag) (Cat: 29698-H08H1), the EC50 is 8-25 ng/mL. Recombinant Human PCSK9 Protein (wild type, His Tag) (Cat: 29698-H08H2) is verified bind to Human LDLR/LDL Receptor Protein (Fc Tag) (Cat: 10231-H02H) with lower affinity (Routinely tested).

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Predicted N terminal: Gln 31

Molecular Mass:

The recombinant human PCSK9 consists of 673 amino acids and predicts a molecular mass of 72.5 kDa. As a result of glycosylation and proteolytic digestion, it migrates as doublet with apparent molecular mass of 19 kDa and 60 kDa corresponding to the pro domain and mature form respectively in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

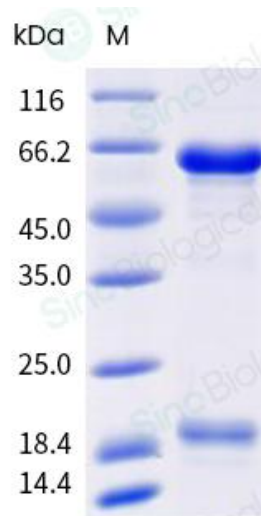
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Proprotein convertase subtilisin/kexin type 9 (PCSK9), also known as NARC1 (neural apoptosis regulated convertase), which is a newly identified human secretory subtilase belonging to the proteinase K subfamily of the secretory subtilase family. PCSK9 protein is an enzyme which in humans is encoded by the PCSK9 gene with orthologs found across many species. It is expressed in neuroepithelioma, colon carcinoma, hepatic and pancreatic cell lines, and in Schwann cells. PCSK9 protein is highly expressed in the liver and regulates low density lipoprotein receptor (LDLR) protein levels. Inhibition of PCSK9 protein function is currently being explored as a means of lowering cholesterol levels. Thereby, PCSK9 protein is regarded as a new strategy to treat hypercholesterolemia. PCSK9 protein contributes to cholesterol homeostasis and may have a role in the differentiation of cortical neurons.

References

References

1. Sseidah, N.G. et al., 2003, Proc. Natl. Acad. Sci. USA. 100: 928-933.
2. Beyer, T.P. et al., 2007, J. Lipid. Res. 48: 1488-1498
3. Shan, L. et al., 2008, Biochem. Biophys. Res. Commun. 375: 69-73.

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