Data Sheet (Cat.No.TMPY-05131)

TargetMol

PCSK9 Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	NARC-1;PC9;LDLCQ1;NARC1;FH3;proprotein convertase subtilisin/kexin type 9;HCHOLA3
Protein Construction:	A DNA sequence encoding the PCSK9 (NP_777596.2) (Met1-Gln692) was expressed with a c-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Gln 31
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q8NBP7-1
Molecular Weight:	74.3 kDa (predicted)

QC Testing

Biological Activity:	1.Measured by its ability to bind recombinant LDLR-His in a functional ELISA. 2.Loaded Biotinylated Recombinant Human PCSK9 Protein, His & Avi Tag (Cat#TMPY-05131) on SA Biosensor, can bind Recombinant Human LDLR/LDL Receptor Protein, mFc Tag with an affinity constant of 12.900 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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.

Reference

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