



Synonym

PCSK9,FH3,HCHOLA3,LDLCQ1,NARC1,PC9

Source

Rat PCSK9, His Tag(PC9-R52H4) is expressed from human 293 cells (HEK293). It contains AA Gln 31 - Gln 691 (Accession # [P59996-1](#)).

Predicted N-terminus: Gln 31

Molecular Characterization

PCSK9(Gln 31 - Gln 691)
P59996-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus. 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 13.9 kDa and 59.3 kDa respectively. The protein migrates as 16 kDa and 60-66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 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

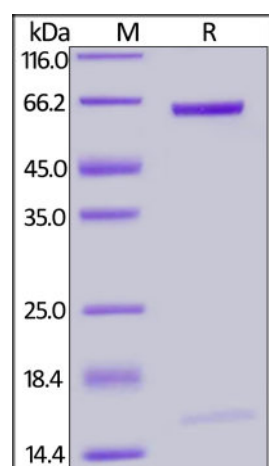
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

SDS-PAGE

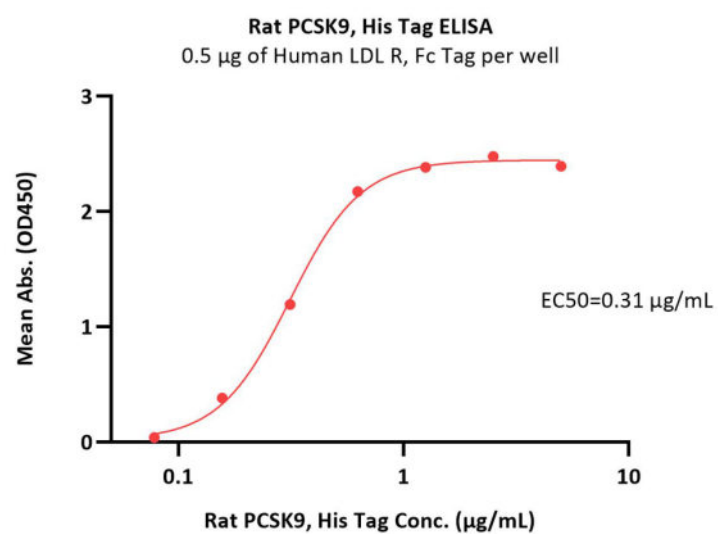


Rat PCSK9, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

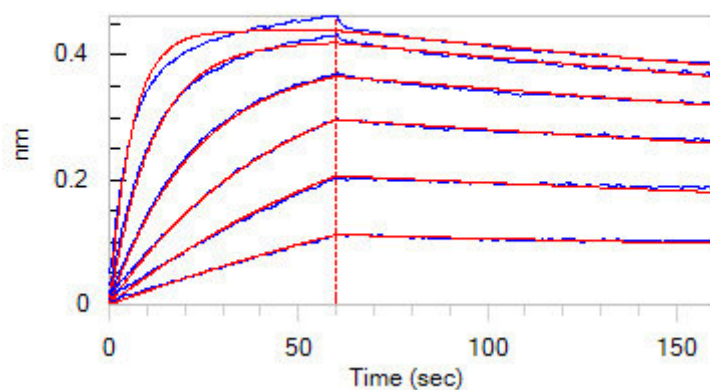
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Immobilized Human LDL R, Fc Tag at 5 µg/mL (100 µL/well) can bind Rat PCSK9, His Tag (Cat. No. PC9-R52H4) with a linear range of 0.156-0.625 µg/mL (QC tested).

Bioactivity-BLI



Loaded Human LDL R, Fc Tag on Protein A Biosensor, can bind Rat PCSK9, His Tag (Cat. No. PC9-R52H4) with an affinity constant of 1.61 nM as determined in BLI assay (ForteBio Octet Red96e) (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).

Clinical and Translational Updates

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