

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Ser156-Gln694 with a C-terminal 10-His tag; Gln35-Gln155 Accession # Q80W65
N-terminal Sequence Analysis	Ser156 (mature form); No results obtained for pro domain, Gln35 inferred from enzymatic pyroglutamate treatment revealing Asp36
Structure / Form	Pro domain & mature form
Predicted Molecular Mass	14 kDa (pro domain) and 59 kDa (mature form)

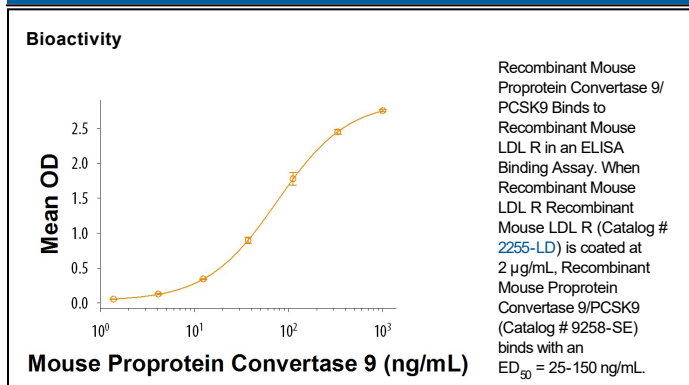
SPECIFICATIONS

SDS-PAGE	18 kDa (pro domain) and 57-67 kDa (mature form), reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse LDLR (Catalog # 2255-LD) is coated at 2 µg/mL, Recombinant Mouse Proprotein Convertase 9/PCSK9 (Catalog # 9258-SE) binds with an ED ₅₀ = 25-150 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Supplied as a 0.2 µm filtered solution in Tris, NaCl and Glycerol. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 6 months from date of receipt, -20 to -70 °C as supplied. • 3 months, -20 to -70 °C under sterile conditions after opening.

DATA



BACKGROUND

PCSK9 (proprotein convertase subtilisin kexin 9), also known as NARC-1, is a member of the proteinase K subfamily of subtilisin-related serine endoproteases. It is highly expressed in the liver, intestine, and kidney and plays an important role in regulating LDL R expression and circulating cholesterol levels (1). PCSK9 is synthesized as precursor protein that is autocatalytically cleaved in the endoplasmic reticulum to generate a 14 kDa prodomain and a 60 kDa catalytic domain (2). Within the secretion pathway, the prodomain remains associated with and functions as a chaperone for the catalytic domain. Mouse PCSK9 shares 78% and 93% amino acid identity with human and rat PCSK9, respectively. PCSK9 plays a key role in the regulation of cholesterol metabolism by binding to hepatic LDL R, LRP-1, VLDL R, and Apolipoprotein E R2 and promoting their lysosomal degradation instead of recycling to the plasma membrane (3-8). It can also regulate cholesterol and triglyceride handling in the intestine and adipose tissue (9-11). The ability of PCSK9 to regulate LDL R expression is inhibited by its binding to LDL particles or Annexin A2 or by additional proteolytic cleavage (12-17).

References:

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