Data Sheet (Cat.No.TMPY-00252)

TargetMol

PNLIPRP1 Protein, Rat, Recombinant (His)

General Information

Synonyms:	pancreatic lipase-related protein 1
Protein Construction:	A DNA sequence encoding the rat Pnliprp1 (NP_114470.1) (Met1-Val473) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Lys 18
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	P54316
Molecular Weight:	52 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

PNLIPRP1, also known as PLRP1, belongs to the AB hydrolase superfamily, Lipase family. PNLIPRP1 is structurally similar to PLRP2. However, these two proteins display different functional properties. PNLIPRP1 may function as an inhibitor of dietary triglyceride digestion. It lacks detectable lipase activity towards triglycerides, diglycerides, phosphatidylcholine, galactolipids or cholesterol esters. PLRP2 hydrolyses milk fat with lower catalytic efficiency than that of PL. PLRP2 activity, higher on homogenized than on native milk fat, is differently influenced by fatty

acids and colipase depending on a proteolytic cleavage in the lid domain.

Reference

Grupe A. et al., 2006, Am J Hum Genet. 78 (1): 78-88.
Strausberg RL. et al., 2002, Proc Natl Acad Sci. 99 (26): 16899-903.
Giller T. et al., 1992, J Biol Chem. 267 (23): 16509-16.

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