

PLRP2 Protein, Human, Recombinant (His)

General Information

Synonyms:	PLRP2;pancreatic lipase-related protein 2
Protein Construction:	A DNA sequence encoding the human PNLIPRP2 (P54317) (Met 1-Cys469) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Lys 18
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P54317
Molecular Weight:	51.56 kDa (predicted); 57 kDa (reducing condition, due to glycosylation)

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:	> 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 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly. 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.
Shipping:	In general, Lyophilized powders are shipping with blue ice.

Protein Background

Galactolipase, also known as PNLIPRP2, is a lipase with broad substrate specificity. It can hydrolyze both phospholipids and galactolipids. Galactolipase acts preferentially on monoglycerides, phospholipids and galactolipids. It also hydrolyses milk fat with a lower catalytic efficiency. The expressed galactolipase shows a lipolytic activity that is, however, only marginally dependent on the presence of colipase. The lipolytic activity of pancreatic extracts and human pancreatic juice on Labrasol is mainly due to the combined action of carboxyl ester

hydrolase and galactolipase.

Reference

Andersson EL, et al. (2011) BSSL and PLRP2: key enzymes for lipid digestion in the newborn examined using the Caco-2 cell line. *J Lipid Res.* 52(11):1949-56.

Xiao X, et al. (2011) Pancreatic lipase-related protein-2 (PLRP2) can contribute to dietary fat digestion in human newborns. *J Biol Chem.* 286(30):26353-63.

Alves BN, et al. (2009) Lipid-dependent cytotoxicity by the lipase PLRP2 and by PLRP2-positive cytotoxic T lymphocytes (CTLs). *Cell Biochem Funct.* 27(5):296-308.

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