

**Product** Data Sheet

# **Screening Libraries**

**Proteins** 

# PLRP2 Protein, Human (sf9, His)

Cat. No.: HY-P77149

Synonyms: Pancreatic lipase-related protein 2; PL-RP2; Galactolipase; PNLIPRP2

Species:

Sf9 insect cells Source: P54317 (M1-C469) Accession:

Gene ID: 5408

Molecular Weight: Approximately 57 kDa

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Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

# **DESCRIPTION**

## Background

PLRP2, a versatile lipase, is a key player in the hydrolysis of triglycerides and galactosylglycerides, exhibiting broad substrate specificity without apparent positional preferences. Particularly crucial in neonates, PLRP2 plays a major role in pancreatic digestion of dietary fats, such as milk fat globules enriched in long-chain triglycerides. As the liver matures and bile salt synthesis increases, PLRP2 likely functions primarily as a galactolipase and monoacylglycerol lipase, efficiently hydrolyzing monogalactosyldiglycerols and digalactosyldiacylglycerols present in plant-based diets. In collaboration with LIPF, PLRP2 contributes to the hydrolysis of partially digested triglycerides. Additionally, in cytotoxic T cells, PLRP2 contributes to perforin-dependent cell lysis, while also exhibiting low phospholipase activity. In neurons, PLRP2 plays a crucial role in the localization of specific phospholipids to neurite tips, facilitating the surface expression of the dopamine transporter SLC6A3/DAT through intricate membrane domain remodeling and vesicle fusion events.

Caution: Product has not been fully validated for medical applications. For research use only.

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