Data Sheet (Cat.No.TMPY-06100)

TargetMol

PLTP Protein, Human, Recombinant (His), Biotinylated

General Information

Synonyms:	BPIFE;phospholipid transfer protein;HDLCQ9
Protein Construction:	A DNA sequence encoding the human PLTP isoform 1 (P55058-1) (Met1-Val493) was expressed, fused with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro. Predicted N terminal: Glu 18
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P55058-1
Molecular Weight:	54.5 kDa (predicted); 73.9 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:	> 80 % 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. 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

Phospholipid transfer protein, also known as Lipid transfer protein II and PLTP, is a secreted protein that belongs to the BPI/LBP/Plunc superfamily and BPI / LBP family. PLTP is nearly ubiquitously expressed in cells and tissues. PLTP converts HDL into larger and smaller particles. It may play a key role in extracellular phospholipid transport and modulation of hdl particles. High-density lipoproteins (HDL) play a major protective role against the

development of coronary artery disease. PLTP is a main factor regulating the size and composition of HDL in the circulation and plays an important role in controlling plasma HDL levels. This is achieved via both the phospholipid transfer activity of PLTP and its capability to cause HDL conversion. PLTP is one of the key lipid transfer proteins in plasma and cerebrospinal fluid. It is involved in novel intracellular functions. PLTP is an important modulator of lipoprotein metabolism, including interparticle phospholipid transfer, remodeling of HDL, cholesterol and phospholipid efflux from peripheral tissues, and the production of hepatic VLDL. PLTP also plays an important role in inflammation and oxidative stress. Accordingly, PLTP has also been implicated in the development of atherosclerosis.

Reference

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