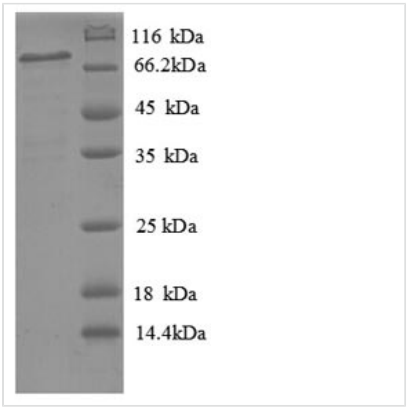
Recombinant Human Phospholipid transfer protein (PLTP)

Product Code	CSB-EP018212HU
Relevance	Facilitates the transfer of a spectrum of different lipid molecules, including diacylglycerol, phosphatidic acid, sphingomyelin, phosphatidylcholine, phosphatidylglycerol, cerebroside and phosphatidyl ethanolamine. Essential for the transfer of excess surface lipids from triglyceride-rich lipoproteins to HDL, thereby facilitating the formation of smaller lipoprotein rnants, contributing to the formation of LDL, and assisting in the maturation of HDL particles. PLTP also plays a key role in the uptake of cholesterol from peripheral cells and tissues that is subsequently transported to the liver for degradation and excretion. Two distinct forms of PLTP exist in plasma: an active form that can transfer PC from phospholipid vesicles to high-density lipoproteins (HDL), and an inactive form that lacks this capability.
Abbreviation	Recombinant Human PLTP protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P55058
Alias	Lipid transfer protein II
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EFPGCKIRVTSKALELVKQEGLRFLEQELETITIPDLRGKEGHFYYNISEVKVTE LQLTSSELDFQPQQELMLQITNASLGLRFRRQLLYWFFYDGGYINASAEGVSIR TGLELSRDPAGRMKVSNVSCQASVSRMHAAFGGTFKKVYDFLSTFITSGMRF LLNQQICPVLYHAGTVLLNSLLDTVPVRSSVDELVGIDYSLMKDPVASTSNLDM DFRGAFFPLTERNWSLPNRAVEPQLQEEERMVYVAFSEFFFDSAMESYFRAG ALQLLLVGDKVPHDLDMLLRATYFGSIVLLSPAVIDSPLKLELRVLAPPRCTIKPS GTTISVTASVTIALVPPDQPEVQLSSMTMDARLSAKMALRGKALRTQLDLRRF RIYSNHSALESLALIPLQAPLKTMLQIGVMPMLNERTWRGVQIPLPEGINFVHEV VTNHAGFLTIGADLHFAKGLREVIEKNRPADVRASTAPTPSTAAV
Research Area	Transport
Source	E.coli
Target Names	PLTP
Expression Region	18-493aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	N-terminal GST-tagged
Mol. Weight	80.1kDa
Protein Length	Full Length of Mature Protein

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

This Human PLTP recombinant protein was produced in E.coli, where the gene sequence encoding Human PLTP (18-493aa) was expressed with the N-terminal GST tag. The purity of this PLTP protein was greater than 90% by SDS-PAGE.
One of the primary functions of PLTP is to facilitate the transfer of different categories of lipids, such as phospholipids and triglycerides, between various lipid carriers. Specifically, it promotes lipid transfer between high-density lipoprotein (HDL) and low-density lipoprotein (LDL), which is essential for maintaining lipid balance in the bloodstream. PLTP plays a crucial role in lipid metabolism. It helps clear excess cholesterol from the body and facilitates the return of cholesterol from peripheral tissues to the liver, contributing to cardiovascular health. Additionally, PLTP is involved in the repair and maintenance of cell membranes, which is essential for preserving cell integrity. Aberrant activity or expression of PLTP is associated with some diseases. For instance, insufficient PLTP activity can lead to disruptions in cholesterol metabolism, increasing the risk of cardiovascular diseases. Furthermore, PLTP is linked to the pathogenesis of conditions like obesity, metabolic syndrome, and diabetes.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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