

Recombinant Human CLPS/Colipase Protein (His Tag)

Catalog Number: PKSH030591

Note: Centrifuge before opening to ensure complete recovery of vial contents.

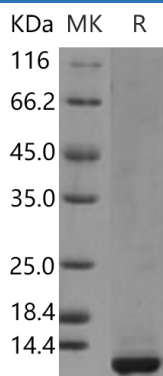
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human CLPS/Colipase protein Met 1-Gln 112, with an C-terminal His
Calculated MW	11.5 kDa
Observed MW	12 kDa
Accession	P04118
Bio-activity	Immobilized human CLPS-His at 10µg/mL(100µL/well) can bind biotinylated human PNLIP-His. The EC ₅₀ of biotinylated human PNLIP-His is 0.57-1.33µg/mL.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, 500mM NaCl, pH 7.0, 10% glycerol Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

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Colipase belongs to the colipase family. Structural studies of the complex and of colipase alone have revealed the functionality of its architecture. It is a small protein with five conserved disulphide bonds. Structural analogies have been recognised between a developmental protein, the pancreatic lipase C-terminal domain, the N-terminal domains of lipoxygenases and the C-terminal domain of alpha-toxin. Colipase can only be detected in pancreatic acinar cells, suggesting regulation of expression by tissue-specific elements. Colipase allows lipase to anchor noncovalently to the surface of lipid micelles, counteracting the destabilizing influence of intestinal bile salts. Without colipase the enzyme is washed off by bile salts, which have an inhibitory effect on the lipase. Colipase is a cofactor needed by pancreatic lipase for efficient dietary lipid hydrolysis. It binds to the C-terminal, non-catalytic domain of lipase, thereby stabilising its active conformation and considerably increasing the overall hydrophobic binding site.

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