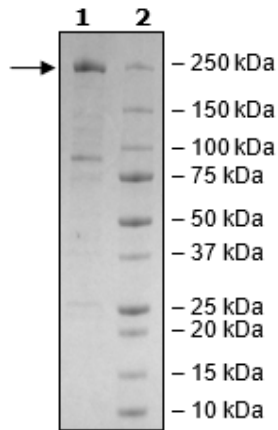


Product Information

Description:	Recombinant human ACC1 (acetyl-coenzyme A carboxylase 1), encompassing amino acids 1-2383(end). This construct includes a C-terminal His-tag (10xHis). This protein was affinity purified.
Background:	ACC1 (acetyl-coenzyme A carboxylase 1) is one of two isoforms of acetyl-CoA carboxylase. It is a cytosolic and it is involved in ATP-dependent carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in <i>de novo</i> fatty acid synthesis, and it is found predominantly in the liver and adipose tissue. Its function is regulated by phosphorylation, allosteric regulators and other proteins, in response to the energetic needs of cells. Acetyl-CoA is at the crossroads between multiple metabolic pathways, so ACC1 has an impact in the formation of building blocks for new cells and in the response to metabolic stress. ACC1 has been linked to several diseases, such as cancer, diabetes, NAFLD (non-alcoholic fatty liver disease) and obesity. Inhibition of ACC1 by TOFA (5-tetradecyloxy-2-furoic acid) can result in complete blockage of DNL (<i>de novo</i> lipogenesis) and may be a potential therapy for patients with NAFLD. The development of inhibitors specific for ACC1, for instance by targeting their catalytic domains or dimerization, may prove beneficial in the treatment of ACC1-related diseases.
Species:	Human
Construct:	ACC1 (1-2383(end)-His)
Concentration:	0.90 mg/ml
Expression System:	Sf9
Purity:	69%
Format:	Aqueous buffer solution.
Formulated In:	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 20% glycerol, 3 mM DTT, and 125 mM Imidazole
MW:	271 kDa
Genbank Accession:	NM_198834
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Specific Activity:	≥58 pmol/min/μg
Assay Conditions:	Assay was done according to Acetyl-Coenzyme A Carboxylase 1 (ACC1) Assay Kit (BPS Bioscience #79315) with various amounts of ACC1.
Applications:	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



ACC1 Activity

