Recombinant ACLY protein (His tag)

Catalog Number	544697
Synonyms	ATP-citrate (pro-S-)-lyase; ACL; Citrate cleavage enzyme
Species	Human
Expression System	E. coli
Accession	P53396
Molecular Weight	Predictes a molecular mass of 48.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-426
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-426 aa (P53396) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This recombinant protein product features a 426-amino acid fragment (residues 1-426) of human ATP-citrate synthase (ACL), encompassing the complete ATP-grasp functional domain. It serves as an essential tool for investigating the specific catalytic mechanisms and biochemical roles of this key metabolic enzyme. ATP-citrate synthase (EC 2.3.3.8), encoded by the ACLY gene, catalyzes the cleavage of citrate into oxaloacetate and acetyl-CoA. The acetyl-CoA produced serves as a fundamental substrate for numerous biochemical pathways involved in protein, carbohydrate, and lipid metabolism. This enzyme is localized in the cytoplasm and cytosol, positioning it centrally within the metabolic network of the cell. The provided fragment specifically includes the ATP-grasp domain, enabling focused studies on domain-specific functions and interactions.