Recombinant ACO13 protein (His tag)

Catalog Number	541324
Synonyms	Acyl-CoA thioesterase 13; Hotdog-fold thioesterase superfamily member 2; Palmitoyl-CoA hydrolase; Thioesterase superfamily member 2; THEM2
Species	Human
Expression System	E. coli
Accession	Q9NPJ3
Molecular Weight	Predictes a molecular mass of 16.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1-140
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-140 aa (Q9NPJ3) 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	Recombinant Human Acyl-coenzyme A thioesterase 13 (ACOT13) fragment (residues 1-140) is a high-quality protein product designed for structural and biochemical research. This fragment represents a stable and soluble unit of the enzyme, which hydrolyzes acyl-CoAs to regulate intracellular fatty acid and coenzyme A levels, making it ideal for studies on lipid metabolism and enzyme function. Acyl-coenzyme A thioesterase 13 (ACOT13), encoded by the ACOT13 gene, catalyzes the hydrolysis of acyl-CoAs into free fatty acids and coenzyme A, playing a key role in maintaining intracellular levels of these metabolites. It exhibits activity toward medium and long-chain fatty acyl-CoA substrates, as well as certain phenylacetyl-CoA derivatives, and may contribute to adaptive thermogenesis. The protein localizes to the cytoplasm (cytosol), mitochondria, nucleus, and during mitosis, to the spindle apparatus, where it colocalizes with tubulin, indicating diverse cellular roles. This recombinant fragment (residues 1-140) was selected for its stability and solubility, enabling detailed investigations into the enzyme's mechanisms and interactions.