Recombinant AUHM protein (His tag)

Catalog Number	544944
Synonyms	3-MG-CoA hydratase; AU-specific RNA-binding enoyl-CoA hydratase; AU-binding protein/enoyl-CoA hydratase; Itaconyl-CoA hydratase
Species	Human
Expression System	E. coli
Accession	Q13825
Molecular Weight	Predictes a molecular mass of 30.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	73-339
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 73-339 aa (Q13825) 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 Methylglutaconyl-CoA Hydratase (AUH) Fragment (residues 73-339) is a high-purity, stable protein designed for structural and functional studies. This 267-amino acid fragment retains key enzymatic properties, offering researchers a reliable tool for investigating leucine degradation and mitochondrial metabolism. Methylglutaconyl-CoA hydratase, encoded by the AUH gene, is a mitochondrial enzyme that catalyzes the fifth step in leucine degradation—the reversible hydration of 3-methylglutaconyl-CoA to 3-hydroxy-3-methylglutaryl-CoA (HMG-CoA). Beyond its primary metabolic role, it demonstrates activity toward substrates like (2E)-glutaconyl-CoA and may participate in the C5-dicarboxylate catabolism pathway by converting itaconyl-CoA to citramalyl-CoA, aiding in detoxification of the immunomodulatory metabolite itaconate. Initially identified as an AU-rich RNA-binding protein, it localizes to the mitochondrion, underscoring its importance in cellular energy and regulatory processes.