Recombinant HOGA1 protein (His tag)

Catalog Number	547653
Synonyms	Dihydrodipicolinate synthase-like; DHDPS-like protein; Probable 2-keto-4-hydroxyglutarate aldolase; Probable KHG-aldolase; Protein 569272
Species	Human
Expression System	E. coli
Accession	Q86XE5
Molecular Weight	Predictes a molecular mass of 33.59 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	32-327
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 32-327 aa (Q86XE5) 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 4-hydroxy-2-oxoglutarate aldolase (HOGA1) fragment (residues 32-327) is a high-purity protein designed for structural and biochemical studies. This 296-amino acid fragment, computationally optimized for stability and solubility, retains key functional regions, making it ideal for investigating hydroxyproline metabolism and mitochondrial enzyme mechanisms. The full-length 4-hydroxy-2-oxoglutarate aldolase (EC 4.1.3.16), encoded by the HOGA1 gene, catalyzes the final step in the metabolic pathway of hydroxyproline, a critical reaction in amino acid catabolism. This mitochondrial enzyme plays an essential role in hydroxyproline degradation, with implications for metabolic disorders. Located specifically within mitochondria, HOGA1 functions in the subcellular compartment where energy metabolism and amino acid processing converge, highlighting its importance in cellular metabolic pathways.