Recombinant HGD protein (His tag)

Catalog Number	543333
Synonyms	Homogentisate oxygenase; Homogentisic acid oxidase; Homogentisicase
Species	Human
Expression System	E. coli
Accession	Q93099
Molecular Weight	Predictes a molecular mass of 51.62 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	1-445
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 1-445 aa (Q93099) 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 Homogentisate 1,2-dioxygenase (EC 1.13.11.5), a key enzyme fragment (residues 1-445) designed for stability and solubility, ideal for structural studies and biochemical assays investigating metabolic pathways. Homogentisate 1,2-dioxygenase, encoded by the HGD gene, catalyzes the conversion of homogentisate to maleylacetoacetate, a critical step in the tyrosine degradation pathway. This enzymatic function is essential for preventing metabolic disorders such as alkaptonuria, underscoring its importance in human physiology and disease research.