Recombinant T3HPD protein (His tag)

Catalog Number	540977
Synonyms	Trans-L-3-hydroxyproline dehydratase
Species	Human
Expression System	E. coli
Accession	Q96EM0
Molecular Weight	Predictes a molecular mass of 39.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	1-354
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 1-354 aa (Q96EM0) 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 Trans-3-hydroxy-L-proline dehydratase (EC 4.2.1.77), a key enzyme fragment (residues 1-354) engineered for stability and solubility, ideal for investigating hydroxyproline metabolism and collagen-derived degradation pathways. Trans-3-hydroxy-L-proline dehydratase, encoded by the L3HYPDH gene in Homo sapiens, catalyzes the dehydration of trans-3-hydroxy-L-proline to Delta(1)-pyrroline-2-carboxylate (Pyr2C). This enzyme plays a critical role in degrading dietary trans-3-hydroxy-L-proline and processing this residue from proteins like collagen-IV, highlighting its importance in amino acid metabolism and connective tissue turnover. The provided function is supported by experimental evidence (PubMed: 22528483).