Recombinant OGFD1 protein (His tag)

Catalog Number	547740
Synonyms	2-oxoglutarate and iron-dependent oxygenase domain-containing protein 1; Termination and polyadenylation 1 homolog; uS12 prolyl 3-hydroxylase
Species	Human
Expression System	E. coli
Accession	Q8N543
Molecular Weight	Predictes a molecular mass of 44.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	1-370
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 1-370 aa (Q8N543) 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 Prolyl 3-hydroxylase OGFOD1 Fragment (aa 1-370) is a high-purity protein designed for studying the Fe2OG dioxygenase domain. This fragment enables targeted investigation into uS12 prolyl 3-hydroxylation and its role in translation termination regulation and stress response mechanisms. OGFOD1 is a prolyl 3-hydroxylase that specifically catalyzes the 3-hydroxylation of 'Pro-62' in the small ribosomal subunit protein uS12 (RPS23), directly influencing protein translation termination efficiency. The enzyme also participates in stress granule formation during cellular stress responses. In human cells, the full-length protein (isoform 1) localizes primarily to the nucleus but relocalizes to cytoplasmic stress granules upon stress exposure, while isoform 2 remains cytoplasmic. This recombinant fragment containing the Fe2OG dioxygenase domain (aa 134-239) provides researchers with a specific tool to investigate the catalytic and regulatory functions of this important oxygenase domain without interference from other protein regions.