Recombinant BUP1 protein (His tag)

Catalog Number	539148
Synonyms	BUP-1; Beta-alanine synthase; N-carbamoyl-beta-alanine amidohydrolase
Species	Human
Expression System	E. coli
Accession	Q9UBR1
Molecular Weight	Predictes a molecular mass of 44.82 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	1-384
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 1-384 aa (Q9UBR1) 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 Beta-ureidopropionase (BUP-1) Fragment (residues 1-384) - A high-purity protein preparation containing the complete CN hydrolase domain, ideal for studying pyrimidine degradation pathways and beta-alanine biosynthesis. Beta-ureidopropionase (EC 3.5.1.6), encoded by the UPB1 gene, is a crucial enzyme in the final step of pyrimidine degradation. This cytoplasmic enzyme catalyzes the conversion of N-carbamoyl-beta-alanine into beta-alanine, ammonia, and carbon dioxide, and similarly processes N-carbamoyl-beta-aminoisobutyrate into beta-aminoisobutyrate. As a key component of nucleotide metabolism, BUP-1 plays an essential role in maintaining cellular pyrimidine balance and contributes to beta-alanine production, an important neurotransmitter and precursor for pantothenic acid synthesis. The enzyme's activity has been extensively characterized through multiple studies, confirming its role in converting 3-ureidopropanoate and 3-ureidoisobutyrate substrates.