Recombinant P20D2 protein (His tag)

Catalog Number	547701
Synonyms	Beta-Ala-Lys dipeptidase
Species	Human
Expression System	E. coli
Accession	Q8IYS1
Molecular Weight	Predictes a molecular mass of 49.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	1-436
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-436 aa (Q8IYS1) 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	This product is a recombinant fragment (residues 1-436) of human Xaa-Arg dipeptidase (EC 3.4.13.4), also known as Beta-Ala-Lys dipeptidase, encoded by the PM20D2 gene. The fragment is designed for structural and biochemical studies, offering a stable and soluble unit ideal for investigating dipeptide hydrolysis mechanisms and metabolic repair functions. Xaa-Arg dipeptidase catalyzes the hydrolysis of dipeptides with basic amino acids such as lysine, ornithine, or arginine at the C-terminus. It is postulated to function in a metabolite repair mechanism by eliminating alternate dipeptide by-products formed during carnosine synthesis, highlighting its role in maintaining metabolic integrity. This enzyme's activity is supported by evidence from PubMed:24891507, underscoring its relevance in cellular biochemistry.