Recombinant CRYM protein (His tag)

Catalog Number	547316
Synonyms	1-piperideine-2-carboxylate/1-pyrroline-2-carboxylate reductase; P2C/Pyr2C reductase; NADP-regulated thyroid-hormone-binding protein
Species	Human
Expression System	E. coli
Accession	Q14894
Molecular Weight	Predictes a molecular mass of 35.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	1-314
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-314 aa (Q14894) 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 Ketimine reductase mu-crystallin (EC 1.5.1.25/1.5.1.1), encompassing amino acids 1-314, is a high-purity protein fragment optimized for stability and solubility. This product supports structural and biochemical studies of NAD(P)H-dependent imine reduction in lysine, glutamate, and sulfur-containing cyclic ketimine metabolism. The full-length CRYM-encoded protein functions as a cytoplasmic ketimine reductase, catalyzing NAD(P)H-dependent reduction of imine bonds in cyclic ketimine substrates. It plays a central role in lysine and glutamate metabolism by efficiently reducing delta(1)-piperideine-2-carboxylate (P2C) and delta(1)-pyrroline-2-carboxylate (Pyr2C). Additional physiological substrates include sulfur-containing compounds such as delta(2)-thiazoline-2-carboxylate (T2C), 3,4-dehydrothiomorpholine-3-carboxylate (AECK), and (S)-cystathionine ketimine (CysK), positioning it as a key enzyme in metabolic pathways involving cyclic imine intermediates.