Recombinant CBPC1 protein (His tag)

Catalog Number	541562
Synonyms	ATP/GTP-binding protein 1; Nervous system nuclear protein induced by axotomy protein 1 homolog; Protein deglutamylase CCP1
Species	Human
Expression System	E. coli
Accession	Q9UPW5
Molecular Weight	Predictes a molecular mass of 41.79 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-362
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 1-362 aa (Q9UPW5) 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 Cytosolic Carboxypeptidase 1 (CCP1) Fragment (1-362) from Homo sapiens. This high-purity, soluble protein fragment is ideal for investigating deglutamylation mechanisms, tubulin modification studies, and enzymatic assays, offering researchers a stable tool for structural and functional analyses. Cytosolic carboxypeptidase 1 (CCP1), encoded by the AGTPBP1 gene, is a metallocarboxypeptidase that plays a critical role in protein deglutamylation. It selectively removes polyglutamate side chains from the C-terminal tails of alpha- and beta-tubulin, regulating microtubule dynamics, and also targets non-tubulin proteins such as MYLK and KLF4. Deglutamylation of KLF4 by CCP1 promotes its proteasomal degradation, thereby influencing cell pluripotency and embryogenesis. The protein localizes to the cytoplasm, cytosol, nucleus, and mitochondria, reflecting its diverse functional roles in cellular processes. This recombinant fragment (residues 1-362) represents a stable, soluble unit designed for biochemical and structural studies, enabling detailed exploration of CCP1's enzymatic activity and interactions.