Recombinant RTCA protein (His tag)

Catalog Number	546407
Synonyms	RNA cyclase; RNA-3'-phosphate cyclase; RNA terminal phosphate cyclase domain-containing protein 1; RTC domain-containing protein 1
Species	Human
Expression System	E. coli
Accession	O00442
Molecular Weight	Predictes a molecular mass of 40.99 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	1-366
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 1-366 aa (O00442) 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 of human RNA 3'-terminal phosphate cyclase (RTCA), encompassing amino acids 1-366. It is designed for researchers studying RNA processing, enzymatic mechanisms, and neural regeneration, offering a stable and soluble unit ideal for structural and biochemical applications. RNA 3'-terminal phosphate cyclase, encoded by the RTCA gene in humans, catalyzes the conversion of 3'-phosphate groups to 2',3'-cyclic phosphodiesters at RNA termini through a multi-step adenylation mechanism. This enzyme is involved in cellular RNA processing and plays a critical role in inhibiting central nervous system axon regeneration, particularly after injuries such as optic nerve damage. The protein is localized to the nucleoplasm, underscoring its nuclear functions in RNA metabolism and regulatory pathways.