PRODUCT INFORMATION

Expression system E.coli

Domain 1-366aa

UniProt No. 000442

NCBI Accession No. NP_003720.1

Alternative Names

RNA 3-terminal phosphate cyclase isoform b, RNA 3'-terminal phosphate cyclase, RPC, RTC1, RTCD1

PRODUCT SPECIFICATION

Molecular Weight 41.7 kDa (389aa) confirmed by MALDI-TOF

Concentration 0.25mg/ml (determined by Bradford assay)

Formulation Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1mM DTT

Purity

> 90% by SDS-PAGE

Tag His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

RTCA catalyzes the conversion of 3'-phosphate to a 2', 3'-cyclic phosphodiester at the end of RNA. The mechanism of action of the enzyme occurs in 3 steps: (A) adenylation of the enzyme by ATP; (B) transfer of adenylate to an RNA-N3'P to produce RNA-N3'PP5'A; (C) and attack of the adjacent 2'-hydroxyl on the 3'-phosphorus in the diester linkage to produce the cyclic end product. The biological role of this enzyme is unknown but it is likely to function in some aspects of cellular RNA processing. Recombinant human RTCA protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional



chromatography techniques.

Amino acid Sequence

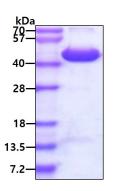
<MGSSHHHHHH SSGLVPRGSH MGS>MAGPRVE VDGSIMEGGG QILRVSTALS CLLGLPLRVQ KIRAGRSTPG LRPQHLSGLE MIRDLCDGQL EGAEIGSTEI TFTPEKIKGG IHTADTKTAG SVCLLMQVSM PCVLFAASPS ELHLKGGTNA EMAPQIDYTV MVFKPIVEKF GFIFNCDIKT RGYYPKGGGE VIVRMSPVKQ LNPINLTERG CVTKIYGRAF VAGVLPFKVA KDMAAAAVRC IRKEIRDLYV NIQPVQEPKD QAFGNGNGII IIAETSTGCL FAGSSLGKRG VNADKVGIEA AEMLLANLRH GGTVDEYLQD QLIVFMALAN GVSRIKTGPV TLHTQTAIHF AEQIAKAKFI VKKSEDEEDA AKDTYIIECQ GIGMTNPNL

General References

Genschik P., Billy E., et al. (1997) EMBO J. 16:2955-2967

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain