# **Product Information**

# Recombinant human RTCA protein

Catalog Number: IBATGP2735



### PRODUCT INPORMATION

# **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

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sacatog (tarriber: 15/11 Gr 275)



chromatography techniques.

# **Amino acid Sequence**

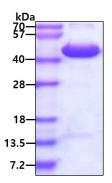
<MGSSHHHHHH SSGLVPRGSH MGS>MAGPRVE VDGSIMEGGG QILRVSTALS CLLGLPLRVQ KIRAGRSTPG LRPQHLSGLE MIRDLCDGQL EGAEIGSTEI TFTPEKIKGG IHTADTKTAG SVCLLMQVSM PCVLFAASPS ELHLKGGTNA EMAPQIDYTV MVFKPIVEKF GFIFNCDIKT RGYYPKGGGE VIVRMSPVKQ LNPINLTERG CVTKIYGRAF VAGVLPFKVA KDMAAAAVRC IRKEIRDLYV NIQPVQEPKD QAFGNGNGII IIAETSTGCL 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

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