

Anti-RPC Antibody

Catalog # AP53712

Product Information

Application	WB
Primary Accession	O00442
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39337

Additional Information

Gene ID	8634
Other Names	RPC; RPC1; RTC1; RTCD1; RNA 3'-terminal phosphate cyclase; RNA cyclase; RNA-3'-phosphate cyclase; RNA terminal phosphate cyclase domain-containing protein 1; RTC domain-containing protein 1
Target/Specificity	Recognizes endogenous levels of RPC protein.
Dilution	WB~~1/500 - 1/1000
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	RTCA
Synonyms	RPC, RPC1, RTC1, RTCD1
Function	Catalyzes the conversion of 3'-phosphate to a 2',3'-cyclic phosphodiester at the end of RNA (PubMed: 9184239). 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 (PubMed: 9184239). Likely functions in some aspects of cellular RNA processing (PubMed: 25961792 , PubMed: 9184239). Function plays an important role in regulating axon regeneration by inhibiting central nervous system (CNS) axon regeneration following optic nerve injury (PubMed: 25961792).
Cellular Location	Nucleus, nucleoplasm

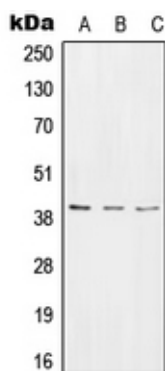
Tissue Location

Ubiquitous.

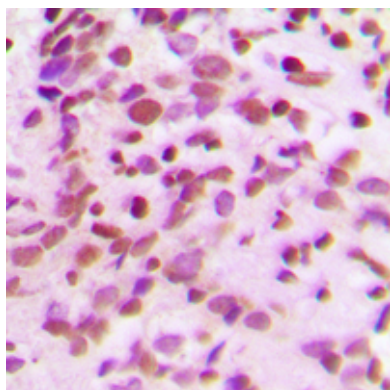
Background

Rabbit polyclonal antibody to RPC

Images



Western blot analysis of RPC expression in HeLa (A), NIH3T3 (B), rat stomach (C) whole cell lysates.



Immunohistochemical analysis of RPC staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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