

**Anti-RPC Antibody**  
**Catalog # AP53712****Specification**

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**Anti-RPC Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB                     |
| Primary Accession | <a href="#">O00442</a> |
| Reactivity        | Human, Mouse, Rat      |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 39337                  |

**Anti-RPC Antibody - 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

**Anti-RPC Antibody - 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:<a href="http://www.uniprot.org/citations/9184239" target="\_blank">9184239</a>). 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:<a href="http://www.uniprot.org/citations/9184239" target="\_blank">9184239</a>). Likely functions in some aspects of cellular RNA processing (PubMed:<a

href="http://www.uniprot.org/citations/25961792" target="\_blank">25961792</a>, PubMed:<a href="http://www.uniprot.org/citations/9184239" target="\_blank">9184239</a>). Function plays an important role in regulating axon regeneration by inhibiting central nervous system (CNS) axon regeneration following optic nerve injury (PubMed:<a href="http://www.uniprot.org/citations/25961792" target="\_blank">25961792</a>).

**Cellular Location**

Nucleus, nucleoplasm

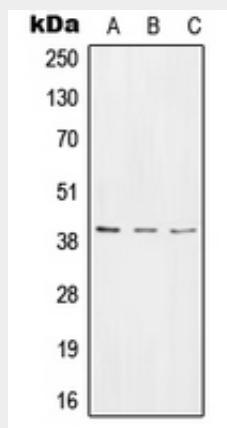
**Tissue Location**

Ubiquitous.

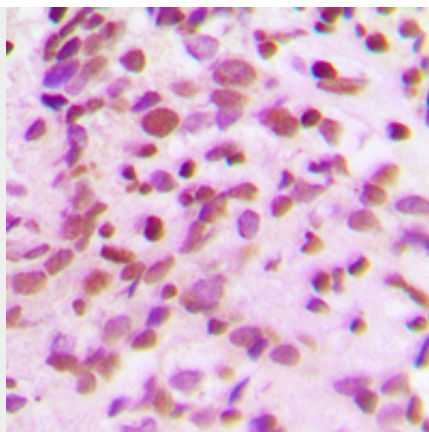
**Anti-RPC Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-RPC Antibody - 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.

#### **Anti-RPC Antibody - Background**

Rabbit polyclonal antibody to RPC