

## Rabbit RTF1 Polyclonal Antibody | anti-RTF1 antibody

Anti-RTF1 Antibody Picoband

| CATALOG # | HOST   | REACTIVITY    | APPLICATIONS                                                                |
|-----------|--------|---------------|-----------------------------------------------------------------------------|
| AAA127329 | Rabbit | Human, Monkey | Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA |

### PRODUCT SYNONYMS

RTF1; Polyclonal Antibody; Anti-RTF1 Antibody Picoband; Protein phosphatase 1 regulatory subunit 14A; 17 kDa PKC-potentiated inhibitory protein of PP1; Protein kinase C-potentiated inhibitor protein of 17 kDa; CPI-17; PPP1R14A; CPI17; PPP1INL; anti-RTF1 antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                       |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                                |
| Reactivity                                     | Human, Monkey                                                                                                                                                                                                         |
| Clonality                                      | Polyclonal                                                                                                                                                                                                            |
| Isotype                                        | Rabbit IgG                                                                                                                                                                                                            |
| Specificity                                    | Isoform 1 is detected in aorta and testis. Isoform 2 is detected in aorta.                                                                                                                                            |
| Purity/Purification                            | Immunogen affinity purified.                                                                                                                                                                                          |
| Form/Format                                    | Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                |
| Applicable Applications for anti-RTF1 antibody | WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA                                                                                                                                       |
| Immunogen                                      | E coli-derived human RTF1 recombinant protein (Position: S77-K705).                                                                                                                                                   |
| Subcellular Localization                       | Cytoplasm                                                                                                                                                                                                             |
| Reconstitution                                 | Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                              |
| Cross Reactivity                               | No cross-reactivity with other proteins                                                                                                                                                                               |
| Protein Function                               | Inhibitor of PPP1CA. Has over 1000-fold higher inhibitory activity when phosphorylated, creating a molecular switch for regulating the phosphorylation status of PPP1CA substrates and smooth muscle contraction.     |
| Preparation and Storage                        | At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing. |

### IMAGES



#### FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of Daudi cells using anti-RTF1 antibody (AAA127329).Overlay histogram showing Daudi cells stained with AAA127329 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RTF1 Antibody (AAA127329, 1ug/1x10<sup>6</sup> cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



#### IHC (Immunohistochemistry)

Figure 3. IHC analysis of RTF1 using anti-RTF1 antibody (AAA127329).RTF1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-RTF1 Antibody (AAA127329) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



#### IHC (Immunohistochemistry)

Figure 2. IHC analysis of RTF1 using anti-RTF1 antibody (AAA127329).RTF1 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-RTF1 Antibody (AAA127329) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



#### WB (Western Blot)

Figure 1. Western blot analysis of RTF1 using anti-RTF1 antibody (AAA127329).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Jurkat whole cell lysates,Lane 2: human SW620 whole cell lysates,Lane 3: human MCF-7 whole cell lysates,Lane 4: monkey COS-7 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RTF1 antigen affinity purified polyclonal antibody (#AAA127329) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for RTF1 at approximately 100 kDa. The expected band size for RTF1 is at 80 kDa.

### ADDITIONAL INFORMATION

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-RTF1 antibody | The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.                                                                                                                                                                                                                                                                                                      |
| Product Categories/Family for anti-RTF1 antibody   | <a href="#">Primary Antibodies</a> ; <a href="#">Protein Phosphorylation</a> ; <a href="#">Ser/Thr Kinases</a> ; <a href="#">Signal Transduction</a>                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| References                                         | 1. Nagase, T., Seki, N., Ishikawa, K., Ohira, M., Kawarabayasi, Y., Ohara, O., Tanaka, A., Kotani, H., Miyajima, N., Nomura, N. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. DNA Res. 3: 321-329, 1996. 2. Warner, M. H., Roinick, K. L., Arndt, K. M. Rtf1 is a multifunctional component of the Paf1 complex that regulates gene expression by ing cotranscriptional histone modification. Molec. Cell. Biol. 27: 6103-6115, 2007. |

### NCBI AND UNIPROT INFORMATION

|                                  |                                                                                     |
|----------------------------------|-------------------------------------------------------------------------------------|
| NCBI GI #                        | 313104316                                                                           |
| NCBI GeneID                      | 23168                                                                               |
| UniProt Accession #              | <a href="#">Q92541</a> ; <a href="#">Q96BX6</a>                                     |
| Molecular Weight                 | 710                                                                                 |
| NCBI Official Full Name          | RNA polymerase-associated protein RTF1 homolog                                      |
| NCBI Official Synonym Full Names | Rtf1, Paf1/RNA polymerase II complex component, homolog (S. cerevisiae)             |
| NCBI Official Symbol             | RTF1                                                                                |
| NCBI Official Synonym Symbols    | GTL7; KIAA0252                                                                      |
| NCBI Protein Information         | RNA polymerase-associated protein RTF1 homolog; ortholog of mouse gene trap locus 7 |
| UniProt Protein Name             | RNA polymerase-associated protein RTF1 homolog                                      |
| UniProt Gene Name                | <b>RTF1</b>                                                                         |
| UniProt Synonym Gene Names       | KIAA0252                                                                            |
| UniProt Entry Name               | RTF1_HUMAN                                                                          |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

