

## Rabbit Rab4/RAB4A Polyclonal Antibody | anti-Rab4/RAB4A antibody

Anti-Rab4/RAB4A Antibody Picoband

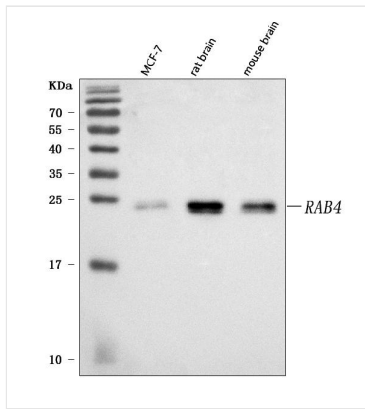
| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                              |
|-----------|--------|-------------------|-------------------------------------------|
| AAA19822  | Rabbit | Human, Mouse, Rat | Western Blot, Immunohistochemistry, ELISA |

### PRODUCT SYNONYMS

Rab4/RAB4A; Polyclonal Antibody; Anti-Rab4/RAB4A Antibody Picoband; solute carrier family 12 member 5; Solute carrier family 12 member 5; Electroneutral potassium-chloride cotransporter 2; K-Cl cotransporter 2; hKCC2; Neuronal K-Cl cotransporter; SLC12A5; KCC2; KIAA1176; anti-Rab4/RAB4A antibody

### PRODUCT SPECIFICATIONS

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                                 | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reactivity                                           | Human, Mouse, Rat                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Clonality                                            | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Isotype                                              | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Specificity                                          | Brain specific. Detected in neuronal cells.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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-Rab4/RAB4A antibody | WB (Western Blot), IHC (Immunohistochemistry), ELISA                                                                                                                                                                                                                                                                                                                                                                                                           |
| Application Notes                                    | WB: 0.25-0.5ug/ml, Human, Mouse, Rat<br>IHC(Paraffin-embedded Section): 2-5ug/ml, Human, Rat<br>ELISA: 0.1-0.5ug/ml                                                                                                                                                                                                                                                                                                                                            |
| Immunogen                                            | E coli-derived human Rab4/RAB4A recombinant protein (Position: D110-C216).                                                                                                                                                                                                                                                                                                                                                                                     |
| Subcellular Localization                             | Membrane. Multi-pass membrane protein.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 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                                     | Mediates electroneutral potassium-chloride cotransport in mature neurons and is required for neuronal Cl <sup>-</sup> homeostasis. As major extruder of intracellular chloride, it establishes the low neuronal Cl <sup>-</sup> levels required for chloride influx after binding of GABA-A and glycine to their receptors, with subsequent hyperpolarization and neuronal inhibition. Involved in the regulation of dendritic spine formation and maturation. |
| 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.                                                                                                                                                                                                                                          |



### IHC (Immunohistochemistry)

**Figure 8.** IHC analysis of Rab4/RAB4A using anti-Rab4/RAB4A antibody (AAA19822). Rab4/RAB4A was detected in a paraffin-embedded section of rat colon 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-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Rab4/RAB4A Antibody (AAA19822) 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 (Lane 2: rat brain tissue lysates,Lane 3: mouse brain tissue 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-Rab4/RAB4A antigen affinity purified polyclonal antibody (#AAA19822) 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 Rab4/RAB4A at approximately 24 kDa. The expected band size for Rab4/RAB4A is at 24 kDa.

## ADDITIONAL INFORMATION

### Related Product Information for anti-Rab4/RAB4A 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.

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|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Categories/Family for anti-Rab4/RAB4A antibody | Primary Antibodies; Neuroscience; Neurotransmission; Potassium Channels; Receptors/Channels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| References                                             | 1. Barbosa, M. D. F. S., Johnson, S. A., Achey, K., Gutierrez, M., Wakeland, E. K., Zerial, M., Kingsmore, S. F. The Rab protein family: genetic mapping of six Rab genes in the mouse. Genomics 30: 439-444, 1995.2. Bielli, A., Thornqvist, P.-O., Hendrick, A. G., Finn, R., Fitzgerald, K., McCaffrey, M. W. The small GTPase Rab4A interacts with the central region of cytoplasmic dynein light intermediate chain-1. Biochem. Biophys. Res. Commun. 281: 1141-1153, 2001. 3. Goueli, B. S., Powell, M. B., Finger, E. C., Pfeffer, S. R. TBC1D16 is a Rab4A GTPase activating protein that regulates receptor recycling and EGF receptor signaling. Proc. Nat. Acad. Sci. 109: 15787-15792, 2012. |

## NCBI AND UNIPROT INFORMATION

|                                  |                                                                |
|----------------------------------|----------------------------------------------------------------|
| NCBI GI #                        | 433660831                                                      |
| NCBI GeneID                      | 5867                                                           |
| NCBI Accession #                 | NP_001258927.1                                                 |
| NCBI GenBank Nucleotide #        | NM_001271998.1                                                 |
| UniProt Accession #              | P20338; Q5T7P7; Q9BQ44                                         |
| Molecular Weight                 | 24,390 Da                                                      |
| NCBI Official Full Name          | ras-related protein Rab-4A isoform 2                           |
| NCBI Official Synonym Full Names | RAB4A, member RAS oncogene family                              |
| NCBI Official Symbol             | RAB4A                                                          |
| NCBI Official Synonym Symbols    | RAB4; HRES1; HRES-1; HRES-1/RAB4                               |
| NCBI Protein Information         | ras-related protein Rab-4A; HTLV-1 related endogenous sequence |
| UniProt Protein Name             | Ras-related protein Rab-4A                                     |
| UniProt Gene Name                | <b>RAB4A</b>                                                   |
| UniProt Synonym Gene Names       | RAB4                                                           |
| UniProt Entry Name               | RAB4A_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.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/rab4-rab4a-antibody-western-blot-immunohistochemistry-elisa/19822>