

## Rabbit RHEB Polyclonal Antibody | anti-RHEB antibody

RHEB Antibody

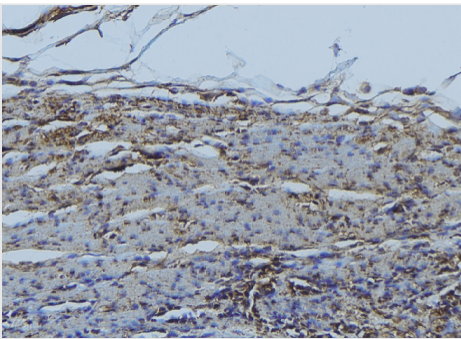
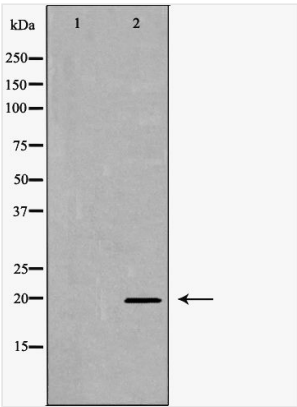
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|-------------------------------|-----------------------|----------------------------------------|------------------------------------------------------------------|
| CATALOG #<br><b>AAA326078</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human, Mouse, Rat</b> | APPLICATIONS<br><b>ELISA, Immunohistochemistry, Western Blot</b> |
|-------------------------------|-----------------------|----------------------------------------|------------------------------------------------------------------|

### PRODUCT SYNONYMS

RHEB; Polyclonal Antibody; RHEB Antibody; Ras homolog enriched in brain 2; formerly; GTP binding protein Rheb; GTP-binding protein Rheb; MGC111559; Ras homolog enriched in brain; RHEB 2; Rheb; RHEB\_HUMAN; RHEB2; anti-RHEB antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                   |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                            |
| Reactivity                                     | Human, Mouse, Rat                                                                                                 |
| Clonality                                      | Polyclonal                                                                                                        |
| Isotype                                        | IgG                                                                                                               |
| Specificity                                    | RHEB antibody detects endogenous levels of total RHEB                                                             |
| Purity/Purification                            | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                     |
| Form/Format                                    | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                     |
| Concentration                                  | 1mg/ml (varies by lot)                                                                                            |
| Sequence Length                                | 184                                                                                                               |
| Applicable Applications for anti-RHEB antibody | ELISA, IHC (Immunohistochemistry), WB (Western Blot)                                                              |
| Immunogen                                      | A synthesized peptide derived from human RHEB                                                                     |
| Subcellular Location                           | Cell Membrane                                                                                                     |
| Tissue Specificity                             | Ubiquitous. Highest levels observed in skeletal and cardiac muscle.                                               |
| Predicted Cross Reactivity                     | <b>Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus</b>                                                 |
| Similarity                                     | Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (83%) |
| Conjugation                                    | Unconjugated                                                                                                      |
| Preparation and Storage                        | Store at -20 degree C. Stable for 12 months from date of receipt.                                                 |



**IHC (Immunohistochemistry)**  
AAA326078 at 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

**WB (Western Blot)**  
Western blot analysis of brain using RHEB antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Related Product Information for anti-RHEB antibody</b> | <p>Description: Rheb (Ras Homolog Enriched in Brain) is an evolutionarily conserved member of the Ras family of small GTP-binding proteins originally found to be rapidly induced by synaptic activity in the hippocampus following seizure (1). While it is expressed at relatively high levels in the brain, Rheb is widely expressed in other tissues and may be induced by growth factor stimulation. Like other family members, Rheb triggers activation of the Raf-MEK-MAPK pathway (2). Biochemical and genetic studies demonstrate that Rheb has an important role in regulating the insulin/TOR signaling pathway (3-6). The mammalian target of rapamycin, mTOR, is a serine/threonine protein kinase that acts as a sensor for ATP and amino acids, balancing the availability of nutrients with translation and cell growth. The tuberin/hamartin (TSC2/TSC1) complex inhibits mTOR activity indirectly by inhibiting Rheb via tuberin's GAP activity (7).</p> <p>Function: Activates the protein kinase activity of mTORC1, and thereby plays a role in the regulation of apoptosis. Stimulates the phosphorylation of S6K1 and EIF4EBP1 through activation of mTORC1 signaling. Has low intrinsic GTPase activity.</p> <p>Subunit Structure: Binds to mTORC1 in a guanyl nucleotide-independent manner. Interacts directly with MTOR, MLST8 and RPTOR. Interacts with TSC2. Interacts (when prenylated) with PDE6D; this promotes release from membranes.</p> <p>Post-translational Modifications: Farnesylation is important for efficiently activating mTORC1-mediated signaling. Phosphorylation by MAPKAPK5 impairs GTP-binding and inactivation.</p> <p>Similarity: Belongs to the small GTPase superfamily. Rheb family.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                        |
|----------------------------------|----------------------------------------|
| NCBI GI #                        | 5032041                                |
| NCBI GeneID                      | 6009                                   |
| NCBI Accession #                 | NP_005605.1                            |
| NCBI GenBank Nucleotide #        | NM_005614.3                            |
| UniProt Accession #              | Q15382; Q53Y56; Q99444; B3KWN6; D3DX13 |
| Molecular Weight                 | Observed: 20 kDa<br>Predicted: 21 kDa  |
| NCBI Official Full Name          | GTP-binding protein Rheb               |
| NCBI Official Synonym Full Names | Ras homolog, mTORC1 binding            |
| NCBI Official Symbol             | RHEB                                   |
| NCBI Official Synonym Symbols    | RHEB2                                  |
| NCBI Protein Information         | GTP-binding protein Rheb               |

|                            |                          |
|----------------------------|--------------------------|
| UniProt Protein Name       | GTP-binding protein Rheb |
| UniProt Gene Name          | RHEB                     |
| UniProt Synonym Gene Names | RHEB2                    |

**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://stage.aaabiotech.com/polyclonal/rheb-antibody-immunohistochemistry-western-blot-elisa/326078>