

Rabbit RHEB Polyclonal Antibody | anti-RHEB antibody

RHEB Antibody

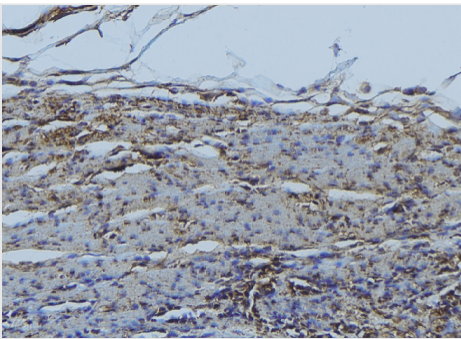
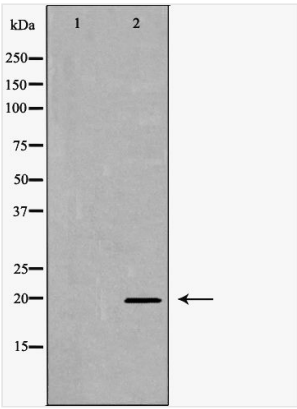
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326078	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

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 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	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus
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

Related Product Information for anti-RHEB antibody

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).

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.

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.

Post-translational Modifications: Farnesylation is important for efficiently activating mTORC1-mediated signaling. Phosphorylation by MAPKAPK5 impairs GTP-binding and inactivation.

Similarity: Belongs to the small GTPase superfamily. Rheb family.

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 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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://www.aaabiotech.com/polyclonal/rheb-antibody-immunohistochemistry-western-blot-elisa/326078>