

Datasheet for 600-401-DY8**Rheb Antibody****Overview**

Description:	Anti-Rheb (RABBIT) Antibody - 600-401-DY8
Item No.:	600-401-DY8
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	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. 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. Similar to other family members, Rheb triggers activation of the Raf-MEK-MAPK pathway. Biochemical and genetic studies demonstrate that Rheb has an important role in regulating the insulin/Target of rapamycin (TOR) signaling pathway. TOR is a serine/threonine protein kinase that acts as a sensor for ATP and amino acids, balancing the availability of nutrients with protein translation and cell growth. A dimeric protein complex termed TSC1/TSC2 indirectly inhibits TOR activity by inhibiting Rheb via the GAP activity of TSC2.
Synonyms:	Rheb Antibody, RHEB2, RHEB2, GTP-binding protein Rheb, Ras homolog enriched in brain
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RHEB
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-Rheb antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from the internal region of human Rheb.
Purity/Specificity:	Anti-Rheb Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with Rheb from other sources has not been determined.
Relevant Links:	• UniProtKB - Q15382 • GeneID - 6009 • NCBI - AAH16155

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Rheb Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 20 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:40,000
IF:	20 µg/mL
IHC:	2 µg/mL
WB:	1 to 4 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

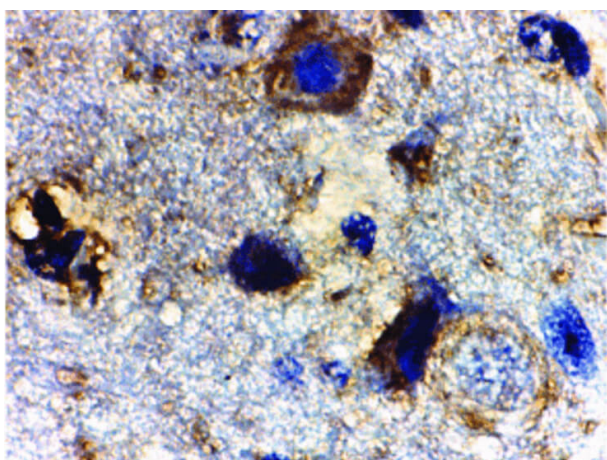
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

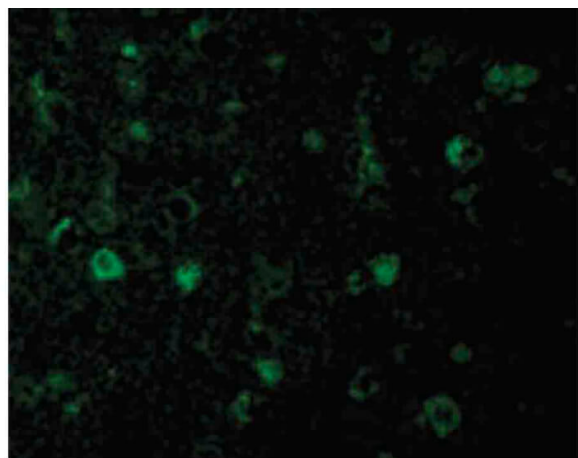
Expiration: Expiration date is one (1) year from date of receipt.

Images



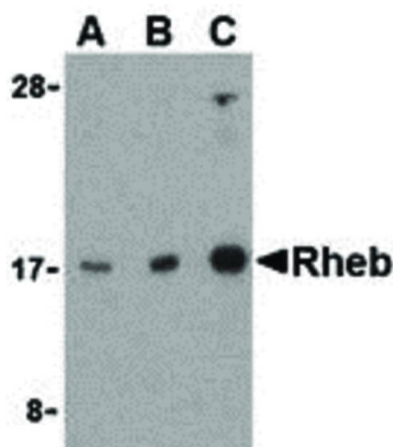
Immunohistochemistry

Immunohistochemistry of Rheb antibody. Tissue: mouse brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Rheb antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Rheb is located in the cytoplasm, endoplasmic reticulum, golgi apparatus, and cell membrane. Staining: Rheb is stained with toluidine blue.



Immunofluorescence Microscopy

Immunofluorescence Microscopy of Rheb antibody. Cell Type: mouse brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: Rheb antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Rheb is located in the cytoplasm, endoplasmic reticulum, golgi apparatus, and cell membrane. Staining: Rheb as green fluorescent signal.



Western Blot

Western Blot of Rheb antibody in mouse brain cell lysate.
 Lane A: Rheb antibody at 1 μ g/mL. Lane B: Rheb antibody at 2 μ g/mL. Lane C: Rheb antibody at 4 μ g/mL. Load: 35 μ g per lane. Primary antibody: Rheb antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 20 kDa, 17 kDa for Rheb. Other band(s): Rheb splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.