

## Recombinant Human RHEB

**Cat. No.** RHEB-31326TH    **Lot. No.** (See product label)

### SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Recombinant full length Human RHEB with proprietary tag; MWt 47 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>             | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>        | This gene is a member of the small GTPase superfamily and encodes a lipid-anchored, cell membrane protein with five repeats of the RAS-related GTP-binding region. This protein is vital in regulation of growth and cell cycle progression due to its role in the insulin/TOR/S6K signaling pathway. The protein has GTPase activity and shuttles between a GDP-bound form and a GTP-bound form, and farnesylation of the protein is required for this activity. Three pseudogenes have been mapped, two on chromosome 10 and one on chromosome 22. |
| <b>Tissue specificity</b> | Ubiquitous. Highest levels observed in skeletal and cardiac muscle.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Form</b>               | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>             | >95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage buffer</b>     | Preservative: None<br>Constituents: 50% Glycerol, 5mM Magnesium chloride, 25mM HEPES, 0.01mM GDP, pH 7.4                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage</b>            | Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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**Sequence Similarities** Belongs to the small GTPase superfamily. Rheb family.

**Full Length** Full L.

## GENE INFORMATION

**Gene Name** RHEB Ras homolog enriched in brain [ Homo sapiens ]

**Official Symbol** RHEB

**Synonyms** RHEB; Ras homolog enriched in brain; Ras homolog enriched in brain 2 , RHEB2; GTP-binding protein Rheb;

**Gene ID** 6009

**mRNA Refseq** NM\_005614

**Protein Refseq** NP\_005605

**MIM** 601293

**Uniprot ID** Q15382

**Chromosome Location** 7q36

**Pathway** Energy dependent regulation of mTOR by LKB1-AMPK, organism-specific biosystem; IRS-mediated signalling, organism-specific biosystem; IRS-related events, organism-specific biosystem; Insulin Signaling, organism-specific biosystem; Insulin receptor signalling cascade, organism-specific biosystem;

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**Function**

GTP binding; GTPase activity; metal ion binding; nucleotide binding;

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