

## Recombinant Human RHEB Protein (GST Tag)

**Catalog Number:** PKSH033545

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

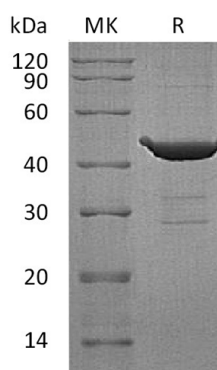
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human RHEB protein Met1-Met184, with an N-terminal GST
<b>Calculated MW</b>	20.4 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	Q15382
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 8% Trehalose, 4% Mannitol, 50mM NaCl, 10mM GSH, 0.05% Tween 80, pH6.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

GTP-Binding Protein Rheb (RHEB) 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. Highest levels of RHEB can be found in the skeletal and cardiac muscle; and it is vital in the regulation of growth and cell cycle progression due to its role in the Insulin/TOR/S6K signaling pathway. RHEB stimulates the phosphorylation of S6K1 and EIF4EBP1 through activation of mTORC1 signaling; and it activates the protein kinase activity of mTORC1. RHEB has GTPase activity and shuttles between a GDP-bound form and a GTP-bound form; farnesylation of the protein is required for this activity.

### For Research Use Only