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Datasheet for ABIN1537039
anti-GBL antibody (C-Term)

1 Image

Overview

Quantity:	400 µL
Target:	GBL
Binding Specificity:	AA 284-313, C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GBL antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	This GBL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 284-313 amino acids from the C-terminal region of human GBL.
Clone:	RB40209
Isotype:	Ig Fraction
Predicted Reactivity:	B, M, Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	GBL
Alternative Name:	GBL (GBL Products)

Target Details

Background: Subunit of both mTORC1 and mTORC2, which regulate cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. Amino-acid-signaling to mTORC1 is mediated by Rag GTPases, which cause amino-acid-induced relocalization of mTOR within the endomembrane system. Growth factor-stimulated mTORC1 activation involves AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eIF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Within mTORC1, LST8 interacts directly with FRAP1 and enhances its kinase activity. In nutrient-poor conditions, stabilizes the FRAP1-RPTOR interaction and favors RPTOR-mediated inhibition of FRAP1 activity. mTORC2 is also activated by growth factors, but seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'.

Molecular Weight: 35876

Gene ID: 64223

NCBI Accession: [NP_001186102](#), [NP_001186103](#), [NP_001186104](#), [NP_071767](#)

UniProt: [Q9BVC4](#)

Pathways: [PI3K-Akt Signaling](#), [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Regulation of Actin Filament Polymerization](#), [Autophagy](#), [CXCR4-mediated Signaling Events](#), [BCR Signaling](#), [Warburg Effect](#)

Application Details

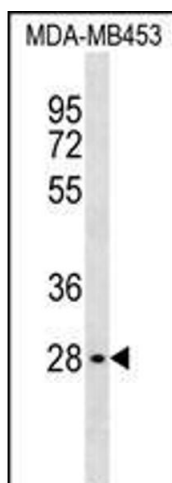
Application Notes: WB: 1:1000

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	GBL Antibody (C-term) can be refrigerated at 2-8 °C for up to 6 months. For long term storage, keep at -20 °C.
Expiry Date:	6 months

Images



Western Blotting

Image 1. GBL Antibody (C-term) (ABIN1537039 and ABIN2838246) western blot analysis in MDA-M cell line lysates (35 µg/lane). This demonstrates the GBL antibody detected the GBL protein (arrow).