

Datasheet for ABIN659124
anti-GBL antibody



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1 Image

Overview

Quantity:	0.1 mL
Target:	GBL
Reactivity:	Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GBL antibody is un-conjugated
Application:	Western Blotting (WB)

Product Details

Immunogen:	This GBL monoclonal antibody is generated from mouse immunized with GBL recombinant protein.
Clone:	211CT7-1-1
Isotype:	IgG1 kappa
Purification:	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Target Details

Target:	GBL
Alternative Name:	GBL (GBL Products)
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-

Target Details

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: 1:100~8000
Restrictions:	For Research Use only

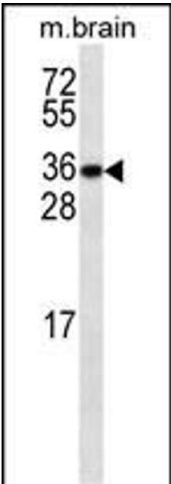
Handling

Format:	Liquid
Buffer:	Mouse monoclonal antibody supplied in crude ascites with 0.09 % (W/V) sodium azide.

Handling

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 (ascites) can be refrigerated at 2-8 °C for up to 6 months. For long term storage, place the at -20 °C.
Expiry Date:	6 months

Images



Western Blotting

Image 1. GBL ABIN659124 western blot analysis in mouse testis tissue lysates (35 µg/lane). This demonstrates the GBL antibody detected the GBL protein (arrow).