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### Datasheet for ABIN659124

### anti-GBL antibody





Overview		
Quantity:	0.1 mL	
Target:	GBL	
Reactivity:	Mouse	
Host:	Mouse	
Clonality:	Monoclonal	
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 aminoacids. 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**

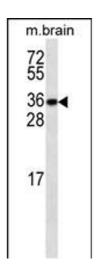
Application Notes:	WB: 1:100~8000	
Restrictions:	For Research Use only	
Handling		

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

### Handling

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  $\mu$ g/lane). This demonstrates the GBL antibody detected the GBL protein (arrow).