Datasheet for ABIN7171523

anti-GBL antibody (AA 159-220) (Biotin)

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Overview

Quantity:	100 µg
Target:	GBL
Binding Specificity:	AA 159-220
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GBL antibody is conjugated to Biotin
Application:	ELISA

Product Details

Immunogen:	Recombinant Human Target of rapamycin complex subunit LST8 protein (159-220AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	GBL
Alternative Name:	MLST8 (GBL Products)
Background:	Background: Subunit of both mTORC1 and mTORC2, which regulates cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors

Target Details

	or amino acids. Growth factor-stimulated mTORC1 activation involves a AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. 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 MTOR and enhances its kinase activity. In nutrient-poor conditions, stabilizes the MTOR-RPTOR interaction and favors RPTOR-mediated inhibition of MTOR 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\'. Aliases: G protein beta subunit like antibody, G protein beta subunit-like antibody, Gable antibody, GbetaL antibody, GBL antibody, GBL protein antibody, LST8 antibody, LST8_HUMAN antibody, Mammalian lethal with SEC13 protein 8 antibody, MGC111011 antibody, mLST8 antibody, MTOR associated protein LST8 homolog (S. cerevisiae) antibody, POP3 antibody, POP3 homolog (S. pombe) antibody, Protein GbetaL antibody, Target of rapamycin complex subunit LST8 antibody, TORC subunit LST8 antibody, WAT1 antibody, WAT1 homolog (S. pombe) antibody
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:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.