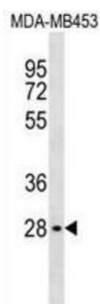


G Protein Beta Subunit Like Protein (GBL) Antibody

Catalogue No.: abx030872



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'.

Target: G Protein Beta Subunit Like Protein (GBL)

Clonality: Polyclonal

Reactivity: Human

Tested Applications: ELISA, WB

Host: Rabbit

Recommended dilutions: WB: 1/1000. Optimal dilutions/concentrations should be determined by the end user.

Conjugation: Unconjugated

Immunogen: KLH-conjugated synthetic peptide between 284-313 amino acids from the C-terminal region of human GBL.

Isotype: IgG

Datasheet

Version: 3.0.0

Revision date: 28 Jun 2025



Form:	Liquid
Purification:	Purified through a protein A column, followed by peptide affinity purification.
Storage:	Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	Q9BVC4 (UniProt , ExPASy)
Gene Symbol:	MLST8
String:	9606.ENSP00000456405
Molecular Weight:	Calculated MW: 35.9 kDa
Buffer:	PBS containing 0.09% sodium azide.
Specificity:	Predicted to react with Mouse, Rat and Cow MLST8.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

For Reference Only