

Anti-LST8 antibody



Description Unconjugated Rabbit polyclonal to LST8

Model STJ192498

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human LST8 protein.

Immunogen Region 100-180aa

Gene ID 64223

Gene Symbol MLST8

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity LST8 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Broadly expressed, with highest levels in skeletal muscle, heart and kidney.

Purification LST8 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Target of rapamycin complex subunit LST8 TORC subunit LST8 G protein

beta subunit-like Gable Protein GbetaL Mammalian lethal with SEC13 protein

8 mLST8

Molecular Weight 35 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:24825OMIM:612190</u>

Alternative Names Target of rapamycin complex subunit LST8 TORC subunit LST8 G protein

beta subunit-like Gable Protein GbetaL Mammalian lethal with SEC13 protein

8 mLST8

Function 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 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 Factin. 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'.

Cellular Localization Cytoplasm

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