

## LST8 Polyclonal Antibody

Cat #: ABP59158

Size: 30μl /100μl /200μl

### Product Information

	<b>Product Name:</b> LST8 Polyclonal Antibody		
	<b>Applications:</b> WB, ELISA		<b>Isotype:</b> Rabbit IgG
	<b>Reactivity:</b> Human, Mouse, Rat		
<b>REF</b>	<b>Catalog Number:</b> ABP59158	<b>LOT</b>	<b>Lot Number:</b> Refer to product label
	<b>Formulation:</b> Liquid		<b>Concentration:</b> 1 mg/ml
	<b>Storage:</b> Store at -20°C. Avoid repeated freeze / thaw cycles.		<b>Note:</b> Contain sodium azide.

**Background:** MLST8 (MTOR Associated Protein, LST8 Homolog) is a Protein Coding gene. Diseases associated with MLST8 include Benign Familial Neonatal Epilepsy and Childhood Absence Epilepsy. Among its related pathways are CD28 co-stimulation and RET signaling. 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 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.

**Application Notes:** Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), ELISA (1:5000-1:20000).

**Storage Buffer:** PBS, pH 7.4, containing 0.02% Sodium Azide as preservative and 50% Glycerol.

**Storage Instructions:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.