TSC1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TSC1, Polyclonal Antibody
Full Product Name	TSC1, Phosphorylated (T416) (Tsc1, Kiaa0243, Hamartin, Tuberous sclerosis 1 protein homolog) (MaxLight 405)
Product Gene Name	anti-TSC1 antibody
Product Synonym Names	Tsc1; Kiaa0243; Hamartin; Tuberous sclerosis 1 protein homolog
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	128746
3D Structure	ModBase 3D Structure for Q9EP53
Immunogen	Mouse TSC1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T416 of mouse TSC1.
Conjugate	MaxLight405
Antigen Modification	Phosphorylated
Note	Preservative Free
Product Categories/Family for anti-TSC1 antibody	Antibodies; Disease Markers
Applications Tested/Suitable for anti-TSC1 antibody	FLISA, Dot Blot (DB)
Application Notes for anti-TSC1 antibody	FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-TSC1 antibody	In complex with TSC2, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (By similarity). Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (By similarity).
Product References and Citations for anti-TSC1 antibody	Kladney, R.D., et al. Cancer Res. 70(21):8937-8947(2010). Sathaliyawala, T., et al. Immunity 33(4):597-606(2010). Scott, C.L., et al. Am. J. Physiol. Lung Cell Mol. Physiol. 299 (4), L455-L471 (2010): Bartolome, A., et al. Endocrinology 151(7):3084-3094(2010). Squarize, C.H., et al. PLoS ONE 5 (5), E10643 (2010).
Other Notes	Small volumes of anti-TSC1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for TSC1 purchase	MBS6359160 is an antibody targeting TSC1. Also known as TSC1, Phosphorylated (T416) (Tsc1, Kiaa0243, Hamartin, Tuberous sclerosis 1 protein homolog) (MaxLight 405). Reactive in Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TSC1. It may not necessarily be applicable to this product.

NCBI GI #	79750409
NCBI GeneID	64930
NCBI Accession #	NP_075025.2
UniProt Primary Accession #	Q9EP53
UniProt Secondary Accession #	Q3UHF2; Q7TS92; Q80U55; Q924U7; A2AHW1
UniProt Related Accession #	Q9EP53
GenBank Nucleotide #	NM_022887.4
NCBI Official Full Name	hamartin isoform 2
NCBI Official Synonym Full Names	tuberous sclerosis 1
NCBI Official Symbol	Tsc1
UniProt Protein Name	Hamartin
UniProt Synonym Protein Names	Tuberous sclerosis 1 protein homolog
Protein Family	Hamartin
UniProt Gene Name	Tsc1
UniProt Synonym Gene Names	Kiaa0243
UniProt Entry Name	TSC1_MOUSE
NCBI Protein Information	hamartin
UniProt Comments for TSC1	TSC1: tuberous sclerosis protein 1 (TSC1). May have tumor suppressor activity. Together with tuberin (TSC2), inhibits mammalian target of rapamycin (mTOR)-mediated signaling to eukaryotic initiation factor 4E-binding protein 1 (4E-BP1) and ribosomal protein S6 kinase. Regulated by the phosphatidylinositol 3-kinase/Akt pathway and phosphorylation of tuberin. Phosphorylated by cyclin-dependent kinase 1/cyclin B during the cell cycle. Protein type: Tumor suppressor; Motility/polarity/chemotaxis Cellular Component: TSC1-TSC2 complex; growth cone; protein complex; cytoskeleton; membrane; intracellular membrane-bound organelle; lamellipodium; cytoplasm; plasma membrane; actin filament; cell cortex; cytosol Molecular Function: protein binding; chaperone binding; GTPase activating protein binding; protein N-terminus binding; GTPase regulator activity Biological Process: myelination; protein heterooligomerization; regulation of cell cycle; regulation of cell-matrix adhesion; cell-matrix adhesion; negative regulation of insulin receptor signaling pathway; negative regulation of cell size; regulation of phosphoprotein phosphatase activity; cardiac muscle cell differentiation; response to insulin stimulus; regulation of translation; negative regulation of cell proliferation; cell projection organization and biogenesis; positive regulation of focal adhesion formation; synapse organization and biogenesis; kidney development; potassium ion transport; nervous system development; regulation of GTPase activity; negative regulation of TOR signaling pathway; protein stabilization; hippocampus development; rRNA export from nucleus; embryonic development; regulation of actin cytoskeleton organization and biogenesis; glucose import; regulation of stress fiber formation; negative regulation of translation; neural tube closure; regulation of focal adhesion formation; cerebral cortex development; regulation of protein kinase activity
Research Articles on TSC1	**1.** TSC1 and TSC2 differentially regulate actin stress fiber formation and cell migration

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