Tuberin (TSC2) Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	Tuberin (TSC2), Monoclonal Antibody
Full Product Name	Tuberin (Tuberous Sclerosis 2 Protein, TSC2, LAM, TSC4) (MaxLight 750)
Product Gene Name	anti-TSC2 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	1C1
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human TSC2.
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 amo immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of produc vial prior to removing the cap.
OMIM	191092
3D Structure	ModBase 3D Structure for P49815
Immunogen	Partial recombinant corresponding to aa540-658 from human TSC2 (NP_000539).
Immunogen Sequence	SPPPELEERDVAAYSASLEDVKTAVLGLLVILQTKLYTLPASHATRVYEMLVSHIQLHYKHSYTLPIASSIRLQAFDFLFLLRADSLHRLGLPNKDGVVRFSP
Conjugate	MaxLight750
Product Categories/Family for anti-TSC2 antibody	Antibodies; Tumor Suppressors
Applications Tested/Suitable for anti-TSC2 antibody	FLISA, Western Blot (WB)
Application Notes for anti-TSC2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-TSC2 antibody	MaxLight750 is a new Near IR stable dye conjugate comparable to DyLight750, Alexa Fluor700 and offers better labeling efficiency, brighter imaging ar immunodetection. Absorbance (759nm); Emission (780nm); Extinction Coefficient 240,000.

Other Notes	Small volumes of anti-TSC2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessa 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 ma
Searchable Terms for TSC2 purchase	MBS6235906 is an antibody targeting TSC2. Also known as Tuberin (Tuberous Sclerosis 2 Protein, TSC2, LAM, TSC4) (MaxLight 750). Reactive in Hu

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TSC2. It may not necessarily be applicable to this product.

NCBI GI #	1519315310
NCBI GeneID	7249
NCBI Accession #	NM_000548.5
UniProt Primary Accession #	P49815
UniProt Related Accession #	P49815
GenBank Nucleotide #	NM_000548
NCBI Official Full Name	Homo sapiens TSC complex subunit 2 (TSC2), transcript variant 1, mRNA
NCBI Official Synonym Full Names	TSC complex subunit 2
NCBI Official Symbol	TSC2
NCBI Official Synonym Symbols	LAM; TSC4; PPP1R160
UniProt Protein Name	Tuberin
UniProt Synonym Protein Names	Tuberous sclerosis 2 protein
Protein Family	Tuberin
UniProt Gene Name	TSC2
UniProt Synonym Gene Names	TSC4
UniProt Entry Name	TSC2_HUMAN
NCBI Protein Information	tuberin
NCBI Summary for TSC2	Mutations in this gene lead to tuberous sclerosis complex. Its gene product is believed to be a tumor suppressor and is able to stimulate specific GTPases. The protein associates with hamartin in a cytosolic complex, possibly acting as a chaperone for hamartin. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

UniProt Comments for TSC2	TSC2: a product of the tumor suppressor gene TSC2. Tuberin and Hamartin (TSC1) form a tumor suppressor heterodimer that inhibits the mTOR nutrient signaling input. TSC1/TSC2 targets the small G protein Rheb, a novel mediator of the nutrient signaling input to mTOR. Functions as a Rheb GTPase activating protein (GAP). Four alternatively spliced isoforms have been described. Protein type: Tumor suppressor; GAPs, misc.; Cell cycle regulation; Nuclear receptor co-regulator; GAPs Chromosomal Location of Human Ortholog: 16p13.3 Cellular Component: TSC1-TSC2 complex; Golgi apparatus; cytoskeleton; growth cone; membrane; cell soma; perinuclear region of cytoplasm; cytoplasm; dendrite; caveola; nucleus; cytosol Molecular Function: protein binding; protein homodimerization activity; protein heterodimerization activity; GTPase activator activity; phosphatase binding Biological Process: negative regulation of MAP kinase activity; phosphoinositide 3-kinase cascade; regulation of insulin receptor signaling pathway; negative regulation of Wnt receptor signaling pathway; nerve growth factor receptor signaling pathway; protein heterooligomerization; regulation of cell cycle; heart development; negative regulation of insulin receptor signaling pathway; negative regulation of cell size; negative regulation of cell proliferation; protein localization; positive chemotaxis; cell projection organization and biogenesis; protein import into nucleus; regulation of endocytosis; acute-phase response; protein kinase B signaling cascade; cell cycle arrest; protein homooligomerization; negative regulation of epithelial cell proliferation; epidermal growth factor receptor signaling pathway; negative regulation of TOR signaling pathway; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; negative regulation of protein kinase B signaling cascade; endocytosis; vesicle-mediated transport; insulin-like growth factor receptor signaling pathway; glucose import; neural tube closure; insulin receptor signaling pathway; response to hypoxia; innate immune response; negative regulation of protein kinase activity; positive regulation of transcription from RNA polymerase II promoter; negative regulation of phosphoinositide 3-kinase cascade Disease: Lymphangioleiomyomatosis; Tuberous Sclerosis 2
Research Articles on TSC2	**1.** The cell subpopulation with high aldehyde dehydrogenase activity, isolated from circulating cells, possessed TSC2 loss of heterozygosity in 8 of 14 patients with lymphangioleiomyomatosis.
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