TSC2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TSC2, Polyclonal Antibody
Full Product Name	TSC2, Phosphorylated (S1388) (TSC2, TSC4, Tuberin, Tuberous sclerosis 2 protein) (MaxLight 650)
Product Gene Name	anti-TSC2 antibody
Product Synonym Names	TSC2; TSC4; Tuberin; Tuberous sclerosis 2 protein
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
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: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	200,608 Da
Chromosome Location	Chromosome: 16; NC_000016.9 (2097990..2138713). Location: 16p13.3
OMIM	191092
3D Structure	ModBase 3D Structure for P49815
Immunogen	TSC2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S1388 of human TSC2.
Conjugate	MaxLight650
Antigen Modification	Phosphorylated
Note	Preservative Free
Product Categories/Family for anti-TSC2 antibody	Antibodies; Disease Markers
Applications Tested/Suitable for anti-TSC2 antibody	FLISA, Dot Blot (DB)
Application Notes for anti-TSC2 antibody	FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-TSC2 antibody	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.
Product References and Citations for anti-TSC2 antibody	Slattery, M.L., et al. Carcinogenesis 31(9):1604-1611(2010). Larson, Y., et al. J. Biol. Chem. 285(32):24987-24998(2010). Mehta, M.S., et al. Breast Cancer Res. Treat. (2010). In press: Mieulet, V., et al. Trends Mol Med 16(7):329-335(2010). Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010).

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 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 TSC2 purchase	MBS6359350 is an antibody targeting TSC2. Also known as TSC2, Phosphorylated (S1388) (TSC2, TSC4, Tuberin, Tuberous sclerosis 2 protein) (MaxLight 650). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

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

NCBI GI #	116256352
NCBI GeneID	7249
NCBI Accession #	NP_000539.2
UniProt Primary Accession #	P49815
UniProt Secondary Accession #	O75275; Q4LE71; Q8TAZ1; A7E2E2; B4DIQ7; B4DRN2; C9J378
UniProt Related Accession #	P49815
GenBank Nucleotide #	NM_000548.3
NCBI Official Full Name	tuberin isoform 1
NCBI Official Synonym Full Names	tuberous sclerosis 2
NCBI Official Symbol	TSC2
NCBI Official Synonym Symbols	LAM; TSC4
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; tuberous sclerosis 2 protein

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.** Our results suggest that XLID CUL4B mutants are defective in promoting TSC2 degradation and positively regulating mTOR signaling in neocortical neurons.
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