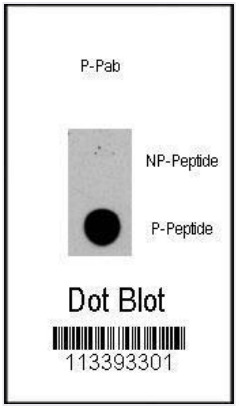
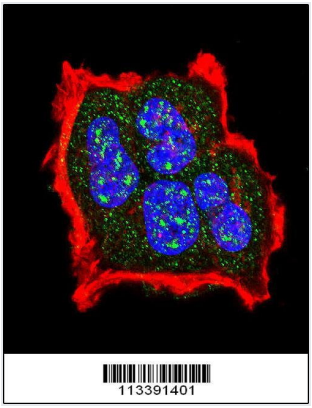
TSC2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TSC2, Polyclonal Antibody
Full Product Name	TSC2, phosphorylated (Ser1420) (Tuberin, Tuberous Sclerosis 2 Protein, TSC4)
Product Gene Name	anti-TSC2 antibody
Product Synonym Names	Anti -TSC2, phosphorylated (Ser1420) (Tuberin, Tuberous Sclerosis 2 Protein, TSC4)
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, 0.09% sodium azide.
Purity/Purification	Affinity Purified Purified by immunoaffinity chromatography.
Specificity	Recognizes human TSC2 phosphorylated at Ser1420.
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	200,608 Da
Chromosome Location	Chromosome: 16; NC_000016.9 (2097472..2138713). Location: 16p13.3
OMIM	191092
3D Structure	ModBase 3D Structure for P49815
Immunogen	Synthetic phosphopeptide corresponding to amino acid residues surrounding Ser1420 of human TSC2 (KLH).
Product Categories/Family for anti-TSC2 antibody	Antibodies; Abs to Tumor Suppressors
Applications Tested/Suitable for anti-TSC2 antibody	ELISA (EL/EIA), Gel Shift Assay (GS/EMSA)
Application Notes for anti-TSC2 antibody	Suitable for use in ELISA and Dot Blot. Dilution: ELISA: 1:1,000 Dot Blot: 1:500
Related Product Information for anti-TSC2 antibody	Mutations in TSC2 lead to tuberous sclerosis complex. The protein is believed to be a tumor suppressor and is able to specifically stimulate the intrinsic GTPase activity of the Ras-related protein RAP1A and RAB5. The protein associates with hamartin in a cytosolic complex, possibly acting as a chaperone for hamartin. TSC2 may have a function in vesicular transport, but may also play a role in the regulation of cell growth arrest and in the regulation of transcription mediated by steroid receptors. Interaction between TSC1 and TSC2 may facilitate vesicular docking.
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	MBS628272 is an antibody targeting TSC2. Also known as TSC2, phosphorylated (Ser1420) (Tuberin, Tuberous Sclerosis 2 Protein, TSC4). Reactive in Human. Host: Rabbit.



Dot Blot (DB) of anti-TSC2 antibody
Dot blot analysis of anti-TSC2-pS1420 Phospho-specific Pab (RB13391) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.



Immunofluorescence (IF) of anti-TSC2 antibody
Confocal immunofluorescent analysis of Phospho-TSC2-S1420 Antibody with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

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
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: Nuclear receptor co-regulator; GAPs; Tumor suppressor; GAPs, misc.; Cell cycle regulation Chromosomal Location of Human Ortholog: 16p13.3 Cellular Component: TSC1-TSC2 complex; Golgi apparatus; growth cone; cytoskeleton; cell soma; membrane; 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; protein kinase B signaling cascade; acute-phase response; cell cycle arrest; protein homooligomerization; negative regulation of epithelial cell proliferation; epidermal growth factor receptor signaling pathway; negative regulation of TOR signaling pathway; negative regulation of protein kinase B signaling cascade; fibroblast growth factor receptor signaling pathway; phosphoinositide-mediated signaling; endocytosis; vesicle-mediated transport; insulin-like growth factor receptor signaling pathway; glucose import; neural tube closure; response to hypoxia; insulin receptor signaling pathway; negative regulation of protein kinase activity; innate immune response; 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 tuberin and p27 are aberrantly expressed in malignant breast tissue
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/tsc2/628272