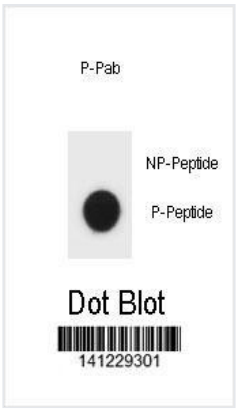
# TSC1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | TSC1, Polyclonal Antibody |
| **Full Product Name** | TSC1, Phosphorylated (S312) (Tsc1, Kiaa0243, Hamartin, Tuberous sclerosis 1 protein homolog) (APC) |
| **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 Allophycocyanin (APC). |
| **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: APC 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 S312 of mouse TSC1. |
| **Conjugate** | APC |
| **Antigen Modification** | Phosphorylated |
| **Note** | Preservative Free |
| **Special Handling** | Light sensitive |
| **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<br>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. |

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| **Searchable Terms for TSC1 purchase** | MBS6359002 is an antibody targeting TSC1. Also known as TSC1, Phosphorylated (S312) (Tsc1, Kiaa0243, Hamartin, Tuberous sclerosis 1 protein homolog) (APC). Reactive in Mouse. Host: Rabbit. |




**Dot Blot (DB) of anti-TSC1 antibody**
Dot blot analysis of mouse TSC1 Antibody (Phospho S312) Phospho-specific Pab on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

## ADDITIONAL DETAILS

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

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| **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 |

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| **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.<br><br>Protein type: Tumor suppressor; Motility/polarity/chemotaxis<br><br>Cellular Component: TSC1-TSC2 complex; growth cone; protein complex; cytoskeleton; membrane; intracellular membrane-bound organelle; lamellipodium; cytoplasm; plasma membrane; actin filament; cell cortex; cytosol<br><br>Molecular Function: protein binding; chaperone binding; GTPase activating protein binding; protein N-terminus binding; GTPase regulator activity<br><br>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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