

Anti-TSC2 Antibody

**Description**

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.

Model

STJ114890

Host

Rabbit

Reactivity

Mouse

Applications

WB

Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 900-1150 of human TSC2 (NP_000539.2).

Gene ID[7249](#)**Gene Symbol**[TSC2](#)**Dilution range**

WB 1:500 - 1:2000

Tissue Specificity

Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta

Purification

Affinity purification

Note

For Research Use Only (RUO).

Protein Name

Tuberin Tuberous sclerosis 2 protein

Molecular Weight

200.608 kDa

Clonality

Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:12363 OMIM:191092 Reactome:R-HSA-1632852
Alternative Names	Tuberin Tuberous sclerosis 2 protein
Function	In complex with TSC1, this tumor suppressor inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling, Acts as a GTPase-activating protein (GAP) for the small GTPase RHEB, a direct activator of the protein kinase activity of mTORC1, May also play a role in microtubule-mediated protein transport, Also stimulates the intrinsic GTPase activity of the Ras-related proteins RAP1A and RAB5,
Cellular Localization	Cytoplasm, Membrane
Post-translational Modifications	Phosphorylation at Ser-1387, Ser-1418 or Ser-1420 does not affect interaction with TSC1, Phosphorylation at Ser-939 and Thr-1462 by PKB/AKT1 is induced by growth factor stimulation, Phosphorylation by AMPK activates it and leads to negatively regulates the mTORC1 complex, Phosphorylated at Ser-1798 by RPS6KA1

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