

Rabbit TSC1 Polyclonal Antibody | anti-TSC1 antibody

TSC1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329501	Rabbit	Human, Mouse, Rat, Monkey Predicted Reactivity: Horse (100%), Sheep (100%), Dog (90%), Xenopus (100%)	ELISA, Western Blot

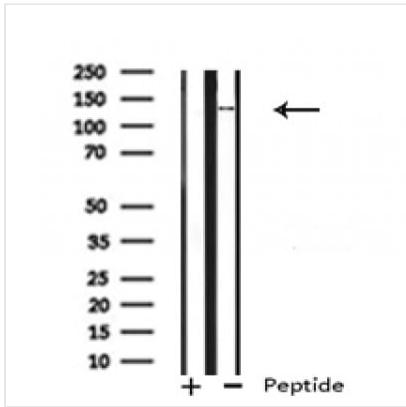
PRODUCT SYNONYMS

TSC1; Polyclonal Antibody; TSC1 Antibody; Hamartin; kiaa0243; LAM; TSC; Tsc1; Tsc1 gene; TSC1_HUMAN; Tuberous sclerosis 1; Tuberous sclerosis 1 protein; tumor suppressor; anti-TSC1 antibody

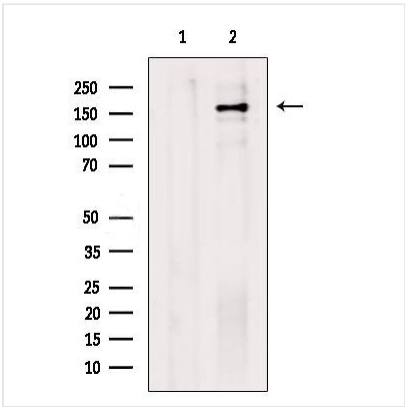
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey Predicted Reactivity: Horse (100%), Sheep (100%), Dog (90%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	TSC1 Antibody detects endogenous levels of total TSC1. Tissue Specificity: Highly expressed in skeletal muscle, followed by heart, brain, placenta, pancreas, lung, liver and kidney. Also expressed in embryonic kidney cells.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-TSC1 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TSC1, corresponding to a region within the internal amino acids.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation at Ser-505 does not affect interaction with TSC2.
Subunit Structure	Probably forms a complex composed of chaperones HSP90 and HSP70, co-chaperones STIP1/HOP, CDC37, PPP5C, PTGES3/p23, TSC1 and client protein TSC2. Forms a complex composed of chaperones HSP90 and HSP70, co-chaperones CDC37, PPP5C, TSC1 and client protein TSC2, CDK4, AKT, RAF1 and NR3C1; this complex does not contain co-chaperones STIP1/HOP and PTGES3/p23. Forms a complex containing HSP90AA1, TSC1 and TSC2; TSC1 is required to recruit TSC2 to the complex. Interacts (via C-terminus) with the closed form of HSP90AA1 (via the middle domain and TPR repeat-binding motif). Interacts with TSC2; the interaction stabilizes TSC2 and prevents TSC2 self-aggregation. Interacts with DOCK7. Interacts with FBXW5. Interacts with TBC1D7. Interacts with WDR45B. Interacts with RPAP3 and URI1.
Similarity	The C-terminal putative coiled-coil domain is necessary for interaction with TSC2.
Subcellular Location	Cytoplasm. Membrane>Peripheral membrane protein. Note: At steady state found in association with membranes.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of TSC1 in lysates of HT-1080, using TSC1 Antibody(AF4609).



WB (Western Blot)
Western blot analysis of extracts from COS-7 cells, using TSC1 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

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. Seems not to be required for TSC2 GAP activity towards RHEB. Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (By similarity). Acts as a co-chaperone for HSP90AA1 facilitating HSP90AA1 chaperoning of protein clients such as kinases, TSC2 and glucocorticoid receptor NR3C1. Increases ATP binding to HSP90AA1 and inhibits HSP90AA1 ATPase activity. Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins. Recruits TSC2 to HSP90AA1 and stabilizes TSC2 by preventing the interaction between TSC2 and ubiquitin ligase HERC1.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	9297077
NCBI GeneID	7248
UniProt Accession #	Q92574; Q5VVN5; B7Z897
Molecular Weight	1164
NCBI Official Full Name	Hamartin
NCBI Official Synonym Full Names	tuberous sclerosis 1
NCBI Official Symbol	TSC1
NCBI Official Synonym Symbols	LAM; TSC
NCBI Protein Information	hamartin; tumor suppressor; tuberous sclerosis 1 protein
UniProt Protein Name	Hamartin
UniProt Gene Name	TSC1
UniProt Synonym Gene Names	KIAA0243; TSC
UniProt Entry Name	TSC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.