

Product datasheet for **TA306218**

Hamartin (TSC1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1 ug/mL, ICC: 2 ug/mL, IF: 2 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	TSC1 antibody was raised against a 15 amino acid peptide from the middle region of human TSC1. TSC1 antibody will recognize both isoforms of TSC1.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	tuberous sclerosis 1
Database Link:	AAC51674 Entrez Gene 7248 Human Q92574



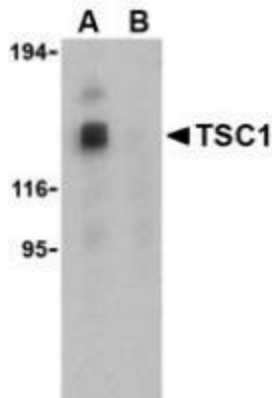
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Background:

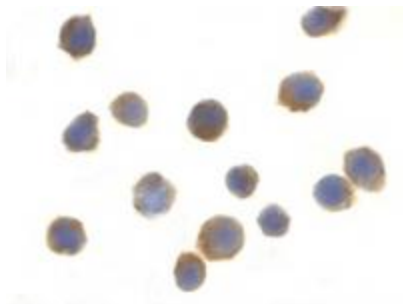
Tuberous sclerosis complex (TSC) is an autosomal dominant tumor syndrome caused by mutations in either of the TSC1 or TSC2 tumor suppressor genes. The products of these genes form a protein complex that indirectly decreases the signaling of the mammalian Target of Rapamycin (TOR), an evolutionarily conserved serine/threonine kinase that regulates cell growth and cell cycle through its ability to integrate signals from nutrient levels and growth factors (reviewed in 1,2). TOR activity is stimulated by Rheb, a member of the Ras superfamily of G-proteins, when the GTP/GDP ratio bound to Rheb is high (3). Immunoprecipitated TSC1/TSC2 has been shown to stimulate Rheb GTPase activity in vitro (4), suggesting that the TSC1/TSC2 decreases the ability of Rheb to stimulate TOR activity. This is supported by experiments showing overexpression of TSC1 and TSC2 results in a significant decrease in the GTP/GDP ratio bound to Rheb and the inhibition of cell growth (4,5). A shorter 40 kDa isoform of TSC1 has been shown to exist but its function is unknown.

Synonyms:

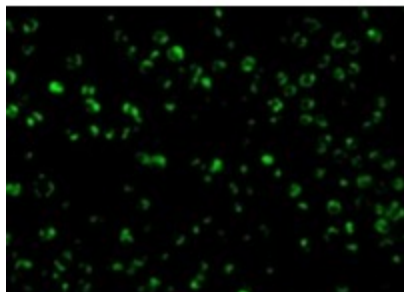
LAM; TSC

Product images:

Western blot analysis of TSC1 in EL4 cell lysate with TSC1 antibody at 1 ug/mL in the (A) absence and (B) presence of blocking peptide.



Immunocytochemistry of TSC1 in EL4 cells with TSC1 antibody at 2 ug/mL



Immunofluorescence of TSC1 in L1210 cells with TSC1 antibody at 10 ug/mL.