BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Hamartin TSC1 Antibody

Catalog Number: A00365

About TSC1

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. 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. Immunoprecipitated TSC1/TSC2 has been shown to stimulate Rheb GTPase activity in vitro, 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. A shorter 40 kDa isoform of TSC1 has been shown to exist but its function is unknown.

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Overview

Product Name	Anti-Hamartin TSC1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Hamartin TSC1 Antibody (Catalog # A00365). Tested in ELISA, WB, ICC, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, ICC, WB
Clonality	Polyclonal
Formulation	TSC1 Antibody is supplied in PBS containing ≤0.09% sodium azide.
Storage Instructions	TSC1 antibody can be stored at 4°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	Q92574

Technical Details

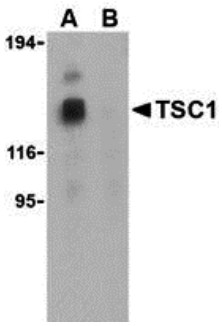
Immunogen	TSC1 antibody was raised against a 15 amino acid synthetic peptide from the middle region of human TSC1. The immunogen is located within amino acids 220 - 270 of TSC1.

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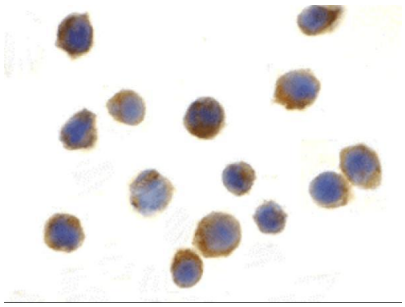
Predicted Reactive Species	Mouse, Rat
Cross Reactivity	At least two isoforms of TSC1 are known to exist; this antibody will detect both isoforms. TSC1 antibody is predicted to not cross-react with TSC2.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	TSC1 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	TSC1 antibody can be used for the detection of TSC1 by Western blot at 1 ug/mL. Antibody can also be used for immunocytochemistry starting at 2 ug/mL. For immunofluorescence start at 2 ug/mL. Antibody validated: Western Blot in mouse samples; Immunocytochemistry in mouse samples and Immunofluorescence in mouse samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

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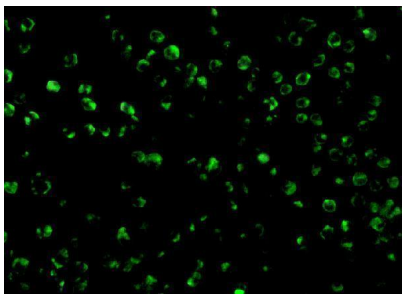
Anti-Hamartin TSC1 Antibody (A00365) Images



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.

Anti-Hamartin TSC1 Antibody

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