

## Product datasheet for **TA306217**

### Hamartin (TSC1) Rabbit Polyclonal Antibody

#### Product data:

|                       |  |
|-----------------------|--|
| Product Type:         | Primary Antibodies   |
| Applications:         | WB   |
| Recommended Dilution: | WB: 2 - 4 ug/mL  |
| Reactivity:           | Human, Mouse   |
| Host:                 | Rabbit   |
| Isotype:              | IgG  |
| Clonality:            | Polyclonal   |
| Immunogen:            | Rabbit TSC1 (CT) polyclonal antibody was raised against a 15 amino acid peptide from the carboxy terminus of human 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:        | <a href="#">AAC51674</a><br><a href="#">Entrez Gene 7248 Human</a><br><a href="#">Q92574</a>                             |



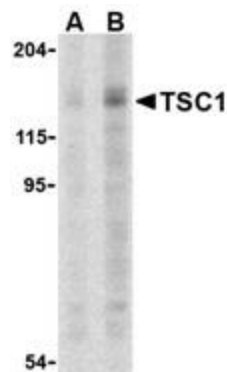
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**Background:**

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 C2C12 cell lysate with TSC1 antibody at (A) 2 and (B) 4 ug.