

**Datasheet for 600-401-FR0****TSC2 Antibody****Overview**

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| <b>Description:</b>  | Anti-TSC2 (RABBIT) Antibody - 600-401-FR0 |
| <b>Item No.:</b>     | 600-401-FR0                               |
| <b>Size:</b>         | 100 µg                                    |
| <b>Applications:</b> | ELISA, WB                                 |
| <b>Reactivity:</b>   | Human, Mouse                              |
| <b>Host Species:</b> | Rabbit                                    |

**Product Details**

**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. 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 complex decreases the ability of Rheb to stimulate TOR activity. This is supported by experiments showing that overexpression of TSC1 and TSC2 results in a significant decrease in the GTP/GDP ratio bound to Rheb and the inhibition of cell growth. At least three isoforms of TSC2 exist.

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| <b>Synonyms:</b>     | TSC2 Antibody, LAM, TSC4, Tuberin, Tuberous sclerosis 2 protein |
| <b>Host Species:</b> | Rabbit  |
| <b>Clonality:</b>    | Polyclonal  |
| <b>Format:</b>       | IgG   |

**Target Details**

|                        |                    |
|------------------------|--------------------|
| <b>Gene Name:</b>      | TSC2               |
| <b>Reactivity:</b>     | Human, Mouse       |
| <b>Immunogen Type:</b> | Conjugated Peptide |

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| <b>Immunogen:</b>          | Anti-TSC2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from near the C-terminus of human TSC2.     |
| <b>Purity/Specificity:</b> | Anti-TSC2 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with TSC2 from other sources has not been determined. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P49815</a></li><li>• <a href="#">GeneID - 7249</a></li><li>• <a href="#">NCBI - NP_000539.2</a></li></ul>     |

## Application Details

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| <b>Tested Applications:</b> | ELISA, WB   |
| <b>Application Note:</b>    | Anti-TSC2 Antibody has been tested for use in ELISA and Western Blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 201 kDa in Western Blots of specific cell lysates and tissues. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.   |
| <b>ELISA:</b>               | 1:10,000  |
| <b>WB:</b>                  | 1 µg/mL   |

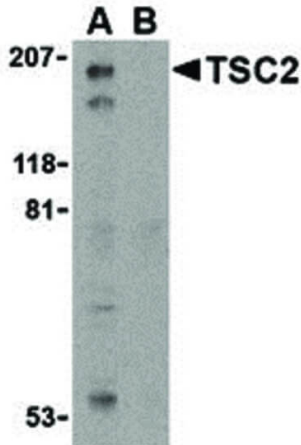
## Formulation

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| <b>Physical State:</b> | Liquid (sterile filtered)                               |
| <b>Concentration:</b>  | 1 mg/mL by UV absorbance at 280 nm                      |
| <b>Buffer:</b>         | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.02% (w/v) Sodium Azide                                |
| <b>Stabilizer:</b>     | None  |

## Shipping & Handling

|                            |   |
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| <b>Shipping Condition:</b> | Dry Ice   |
| <b>Storage Condition:</b>  | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.   |

## Images



### Western Blot

Western Blot of TSC2 antibody in L1210 cell lysate. Lane A: TSC2 antibody in the absence of blocking peptide. Lane B: TSC2 antibody in the presence of blocking peptide. Load: 35  $\mu$ g per lane. Primary antibody: TSC2 antibody at 1  $\mu$ g/mL for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 96 kDa, 205 kDa for TSC2. Other band(s): TSC2 splice variants and isoforms.

## Disclaimer

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