

Datasheet: AHP1001

**BATCH NUMBER 160802**

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|----------------------|------------------------------|
| <b>Description:</b>  | RABBIT ANTI TSC1             |
| <b>Specificity:</b>  | TSC1                         |
| <b>Other names:</b>  | TUBEROUS SCLEROSIS COMPLEX 1 |
| <b>Format:</b>       | Purified                     |
| <b>Product Type:</b> | Polyclonal Antibody          |
| <b>Isotype:</b>      | Polyclonal IgG               |
| <b>Quantity:</b>     | 0.1 mg                       |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                            | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry             |     |    | ▪              |                    |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin | ▪   |    |                |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           | ▪   |    |                | 1ug/ml             |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

### Target Species

Human

### Species Cross Reactivity

Reacts with: Rat, Mouse

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Purified IgG - liquid

**Antiserum Preparation** Antisera to human TSC1 were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG prepared by affinity chromatography.

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| <b>Buffer Solution</b>                | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b>       | 0.02% Sodium Azide  |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0mg/ml  |
| <b>Immunogen</b>                      | A 15 amino acid peptide located near the centre of human TSC1.  |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">Q92574</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">7248</a>    TSC1    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | KIAA0243, TSC   |
| <b>RRID</b>                           | AB_609656   |
| <b>Specificity</b>                    | <p><b>Rabbit anti Human TSC1 antibody</b> recognizes an epitope within the internal region of the 130kDa tumour suppressor protein, Tumour sclerosis complex 1 (TSC1). Mutation within the TSC1 gene is responsible for Tuberous sclerosis (TSC), an autosomal dominant genetic disorder associated with the development of benign tumors (hamartomas), a condition also induced by mutation of the Tumour sclerosis complex 2 (TSC2) gene.</p> <p>Many proteins have been shown to play a role in the regulation of the serine/threonine kinase known as target of rapamycin (TOR), a central component in a complex signaling pathway which controls cell proliferation and cell cycle progression. Negative regulation of TOR activity occurs following the over-expression of the TSC1 and TSC2 gene products, hamartin and tuberin. These act by suppressing the phosphorylation of eukaryotic translation initiation factor 4E binding protein 1 (4EBP1) and ribosomal protein S6 kinase (S6K), downstream targets of TOR involved in mRNA translation. Furthermore the TOR activator protein Rheb has been identified as a target of TSC1-TSC2 complexes.</p> <p>Rabbit anti Human TSC1 antibody has been reported as suitable for use in IHC on mouse EL4 cell cytospins at 2µg/ml.</p> |
| <b>Western Blotting</b>               | AHP1001 detects a band of approximately 130kDa in mouse EL4 cell lysates.   |
| <b>Further Reading</b>                | <ol style="list-style-type: none"> <li>Inoki, K. <i>et al.</i> (2005) Signaling by target of rapamycin proteins in cell growth control. <a href="#">Microbiol Mol Biol Rev. 69 (1): 79-100.</a></li> <li>Tee, A.R. <i>et al.</i> (2002) Tuberous sclerosis complex-1 and -2 gene products function together to inhibit mammalian target of rapamycin (mTOR)-mediated downstream signaling. <a href="#">Proc Natl Acad Sci U S A. 99 (21): 13571-6.</a></li> </ol>   |
| <b>Storage</b>                        | <p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p>  |

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/AHP1001">https://www.bio-rad-antibodies.com/SDS/AHP1001</a><br>10040 |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

### Recommended Useful Reagents

- [ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)  
[TidyBlot WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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|----------------------------------|---|------------------|---|---------------|---|
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M363763:200529'

Printed on 18 Jan 2024