

Datasheet: AHP1001

Description:	RABBIT ANTI TSC1
Specificity:	TSC1
Other names:	TUBEROUS SCLEROSIS COMPLEX 1
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	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.

	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.
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.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.02% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	A 15 amino acid peptide located near the centre of human TSC1.

**External Database
Links**

UniProt:

[Q92574](#) [Related reagents](#)

Entrez Gene:

[7248](#) TSC1 [Related reagents](#)

Synonyms

KIAA0243, TSC

Specificity

Rabbit anti Human TSC1 antibody 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.

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.

Rabbit anti Human TSC1 antibody has been reported as suitable for use in IHC on mouse EL4 cell cytopins at 2µg/ml.

Western Blotting

AHP1001 detects a band of approximately 130kDa in mouse EL4 cell lysates.

Further Reading

1. Inoki, K. *et al.* (2005) Signaling by target of rapamycin proteins in cell growth control. [Microbiol Mol Biol Rev. 69 \(1\): 79-100.](#)
2. Tee, A.R. *et al.* (2002) Tuberous sclerosis complex-1 and -2 gene products function together to inhibit mammalian target of rapamycin (mTOR)-mediated downstream signaling. [Proc Natl Acad Sci U S A. 99 \(21\): 13571-6.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
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.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[DyLight®680](#), [DyLight®800](#)

Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)

[TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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