

# tuberin (H-300): sc-13012

## BACKGROUND

Tuberous sclerosis complex (TSC) is an autosomal dominant genetic disorder characterized by mental retardation and the widespread development of distinctive tumors termed hamartomas. Two different genetic loci have been linked to TSC; one of these loci, the tuberous sclerosis-2 gene (TSC2), encodes a protein called tuberin and the other loci, tuberous sclerosis-1 gene (TSC1), encodes a protein called hamartin. Tuberin and hamartin interact with each other forming a cytoplasmic complex. Hamartin interacts with the ezrin-radixin-moesin (ERM) family of actin-binding proteins and inhibition of hamartin activity results in loss of cell adhesion. Hamartin is present in most adult tissues with strong expression in brain, heart, and kidney.

## REFERENCES

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3. Frech, M., et al. 1990. Inhibition of GTPase activating protein stimulation of Ras-p21 GTPase by the Krev-1 gene product. *Science* 249: 169-171.
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## CHROMOSOMAL LOCATION

Genetic locus: TSC2 (human) mapping to 16p13.3; Tsc2 (mouse) mapping to 17 A3.3.

## SOURCE

tuberin (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of tuberin of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

tuberin (H-300) is recommended for detection of tuberin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

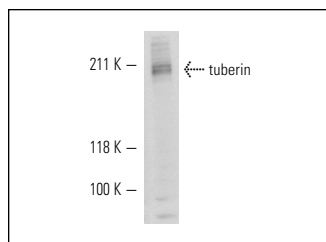
tuberin (H-300) is also recommended for detection of tuberin in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for tuberin siRNA (h): sc-36762, tuberin siRNA (m): sc-36763, tuberin shRNA Plasmid (h): sc-36762-SH, tuberin shRNA Plasmid (m): sc-36763-SH, tuberin shRNA (h) Lentiviral Particles: sc-36762-V and tuberin shRNA (m) Lentiviral Particles: sc-36763-V.

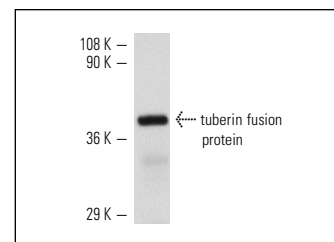
Molecular Weight of tuberin: 200 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, PC-3 cell lysate: sc-2220 or Jurkat whole cell lysate: sc-2204.

## DATA



tuberin (H-300): sc-13012. Western blot analysis of tuberin expression in PDGF-treated 3611-RF whole cell lysate.



tuberin (H-300): sc-13012. Western blot analysis of human recombinant tuberin fusion protein.

## SELECT PRODUCT CITATIONS

1. Jiang, W.G., et al. 2005. Tuberin and hamartin are aberrantly expressed and linked to clinical outcomes in human breast cancer: the role of promoter methylation of TSC genes. *Eur. J. Cancer* 41: 1628-1636.
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3. Amin, R.M., et al. 2008. Role of the PI3K/Akt, mTOR, and STK11/LKB1 pathways in the tumorigenesis of sclerosing hemangioma of the lung. *Pathol. Int.* 58: 38-44.


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