

tuberin (C-20): sc-893

BACKGROUND

Tuberous sclerosis (TSC) is a human genetic disorder characterized by mental retardation and the widespread development of benign and infrequently malignant tumors in a variety of tissues. 2 different genetic loci have been linked to TSC; one of these loci, the tuberous sclerosis-2 gene (TSC2), encodes a protein 1,784 amino acids in length, called tuberin. Tuberin exhibits a region of limited homology to the catalytic domain of Rap1 GAP. Subcellular fractionation studies have shown tuberin to be predominantly localized in membrane fractions. Tuberin is capable of stimulating the intrinsic GTPase activity of Rap 1A, but not Rap 2, H-Ras, Rac or Rho. TSC2 maps to human chromosome 16 and is associated with several intragenic mutations in affected patients. The mouse homolog of the tuberin gene maps to chromosome 17.

CHROMOSOMAL LOCATION

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

SOURCE

tuberin (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-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.

Blocking peptide available for competition studies, sc-893 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

tuberin (C-20) 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 (C-20) is also recommended for detection of tuberin in additional species, including equine, canine and porcine.

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, Jurkat whole cell lysate: sc-2204 or PC-3 cell lysate: sc-2220.

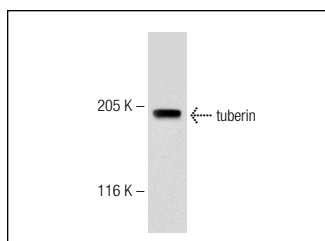
STORAGE

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

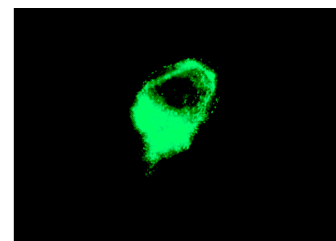
RESEARCH USE

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

DATA



tuberin (C-20): sc-893. Western blot analysis of tuberin expression in U-87 MG whole cell lysate.



tuberin (C-20): sc-893. Immunofluorescence staining of methanol-fixed U-87 MG cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Cherrin, C., et al. 2010. An allosteric Akt inhibitor effectively blocks Akt signaling and tumor growth with only transient effects on glucose and Insulin levels *in vivo*. *Cancer Biol. Ther.* 9: 493-503.
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- Abe, N., et al. 2010. Mammalian target of rapamycin (mTOR) activation increases axonal growth capacity of injured peripheral nerves. *J. Biol. Chem.* 285: 28034-28043.
- Kume, K., et al. 2010. Role of N-end rule ubiquitin ligases UBR1 and UBR2 in regulating the leucine-mTOR signaling pathway. *Genes Cells* 15: 339-349.
- Berger, A., et al. 2013. Sensitization of melanoma cells for TRAIL-induced apoptosis by BMS-345541 correlates with altered phosphorylation and activation of Bax. *Cell Death Dis.* 4: e477.


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