SANTA CRUZ BIOTECHNOLOGY, INC.

hamartin (C-20): sc-12082

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

TTuberous 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 cystoplasmic 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.

CHROMOSOMAL LOCATION

Genetic locus: TSC1 (human) mapping to 9q34.13; Tsc1 (mouse) mapping to 2 A3.

SOURCE

hamartin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of hamartin 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-12082 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hamartin (C-20) is recommended for detection of hamartin 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).

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

Suitable for use as control antibody for hamartin siRNA (h): sc-37437, hamartin siRNA (m): sc-37438, hamartin shRNA Plasmid (h): sc-37437-SH, hamartin shRNA Plasmid (m): sc-37438-SH, hamartin shRNA (h) Lentiviral Particles: sc-37437-V and hamartin shRNA (m) Lentiviral Particles: sc-37438-V.

Molecular Weight of hamartin: 130 kDa.

Positive Controls: MDA-MB-231 whole cell lysate: sc-2232 and MDA-MB-468 whole cell lysate: sc-2282.

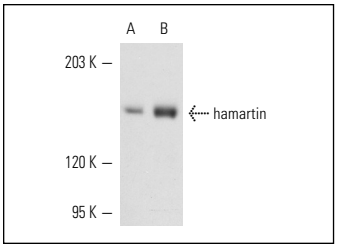
STORAGE

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



hamartin (C-20): sc-12082. Western blot analysis of hamartin expression in MDA-MB-231 (**A**) and MDA-MB-468 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yamamoto, Y., et al. 2002. Multicompartmental distribution of the tuberous sclerosis gene products, hamartin and tuberin. Arch. Biochem. Biophys. 404: 210-217.
2. Rendtorff, N.D., et al. 2005. Analysis of 65 tuberous sclerosis complex (TSC) patients by TSC2 DGGE, TSC1/TSC2 MLPA, and TSC1 long-range PCR sequencing, and report of 28 novel mutations. Hum. Mutat. 26: 374-383.
3. Grajkowska, W., et al. 2008. Expression of tuberin and hamartin in tuberous sclerosis complex-associated and sporadic cortical dysplasia of Taylor's balloon cell type. Folia Neuropathol. 46: 43-48.
4. Apró, W., et al. 2015. Resistance exercise-induced S6K1 kinase activity is not inhibited in human skeletal muscle despite prior activation of AMPK by high-intensity interval cycling. Am. J. Physiol. Endocrinol. Metab. 308: E470-E481.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.