**BACKGROUND**

Tuberous sclerosis complex (TSC) is an autosomal dominant genetic disorder characterized by mental retardation and the widespread development of distinctive tumours 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 locus, 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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Hamartin (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1145-1164 at the C-terminus of hamartin of human origin.

**STORAGE**

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

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

Hamartin (A-2) is recommended for detection of hamartin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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: HeLa whole cell lysate: sc-2200, IMR-32 cell lysate: sc-2409 or WI-38 whole cell lysate: sc-364260.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

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

**RESEARCH USE**

Western blot analysis of hamartin expression in HeLa (A), NIH/3T3 (B), SK-MEL-24 (C) and C6 (D) whole cell lysates and mouse brain tissue extract (E).