**BACKGROUND**

Hamartin (TSC1) and tuberin (TSC2, LAM, TSC4) can form a functional complex and negatively regulate cell growth by inhibiting protein synthesis. Tuberous sclerosis complex (TSC) is a genetic disorder that arises through mutations in the hamartin and tuberin genes. The phosphoinositide 3-kinase (PI3K)/Akt pathway phosphorylates tuberin on Serine-939 and Threonine-1462 and inhibits the tumor suppressor function of the TSC complex. Anisomycin stimulates phosphorylation of Serine-1210 of tuberin via the p38-MK2 kinase cascade. Phosphorylation of tuberin by MK2 creates a 14-3-3 binding site. Phosphorylation of hamartin regulates the function of the hamartin-tuberin complex during the G2/M phase of the cell cycle.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TSC2 [human] mapping to 16p13.3.

**SOURCE**

p-tuberin (325.Ser 1798) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 1798 phosphorylated tuberin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-tuberin (325.Ser 1798) is available conjugated to agarose (sc-293149 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, and to HRP (sc-293149 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

**APPLICATIONS**

p-tuberin (325.Ser 1798) is recommended for detection of Ser 1798 phosphorylated tuberin of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of p-tuberin: 200 kDa.

Positive Controls: PMA/Ca2+/Calmodulin A treated Jurkat whole cell lysate, Jurkat whole cell lysate: sc-2204 or T-47D cell lysate: sc-2293.

**RECOMMENDED SUPPORT REAGENTS**

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

1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048.

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

**SELECT PRODUCT CITATIONS**


**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. Not for resale.