

Recombinant Hamartin Monoclonal Antibody

catalog number: **AN302053L**

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

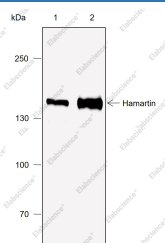
Reactivity	Mouse;Rat
Immunogen	Peptide. This information is proprietary to PTMab.
Host	Rabbit
Isotype	Rabbit IgG
Clone	C431674
Purification	Protein A purified
Buffer	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

Applications

Recommended Dilution

WB	1:1000
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Data



Western Blot with Hamartin Monoclonal Antibody at dilution of 1:1000. Lane 1: Mouse brain, Lane 2: PC-12

Observed-MW:160 kDa

Calculated-MW:130 kDa

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	Ice bag

Background

Tuberous sclerosis complex (TSC) is an autosomal dominant disorder that causes symptoms including hamartomas in brain, kidney, heart, lung and skin. The tumor suppressor genes TSC1 and TSC2 encode hamartin and tuberin, respectively. Hamartin and tuberin form a functional complex and are involved in numerous cellular activities such as vesicular trafficking, regulation of the G1 phase of the cell cycle, steroid hormone regulation, Rho activation and anchoring neuronal intermediate filaments to the actin cytoskeleton. The combination of genetic, biochemical and cell-biological studies demonstrate that the tuberin/hamartin complex functions as a GTPase-activating protein for the Ras-related small G protein Rheb and thus inhibits targets of rapamycin including mTOR. Cells lacking hamartin or tuberin fail to inhibit phosphorylation of S6 kinase resulting in the activation of S6 ribosomal protein's translation of 5'TOP mRNA transcripts. Hamartin is phosphorylated by CDK1 (cdc2) at Thr417, Ser584 and Thr1047 in cells in G2/M phase of the cell cycle.

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