

**Mouse Anti-Hamartin//TSC1 [C-8]: MC0598**

**Intended Use:** For Research Use Only

**Description:** Tuberous 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 cytoplasmic complex. Hamartin interacts with the ezrinradixin-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.

**Specifications:**

Clone: C-8  
 Source: Mouse  
 Isotype: IgG2b  
 Reactivity: Human  
 Localization: Cytoplasm  
 Formulation: In 1.0 ml of PBS with < 0.1% sodium azide (NaN3) and 0.1% gelatin.  
 Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
 Applications: IHC, ELISA, IF, IP, WB  
 Package:

Description	Catalog No.	Size
Hamartin//TSC1 Concentrated	MC0598	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Skeletal muscle tissue  
 Concentrated Dilution: 50-250  
 Pretreatment: Citrate pH6.0, or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



Human skeletal muscle FFPE tissue stained with anti- Hamartin using DAB.  
 Note the cytoplasmic staining of myocytes.

**References:**

1. Tumor suppressors TSC1 and TSC2 differentially modulate actin cytoskeleton and motility of mouse embryonic fibroblasts. Goncharova EA, et al. PLoS One. Oct 31;9(10):e111476, 2014.
2. The tumor suppressor hamartin enhances Dbl protein transforming activity through interaction with ezrin. Ognibene M, et al. J Biol Chem. Aug 26;286(34):29973-83, 2011.
3. Dissociate expression of tuberous sclerosis complex 1 product hamartin in a skin and pulmonary lesion of a tuberous sclerosis complex. Wataya-Kaneda M, et al. Hum Pathol. Mar;40(3):430-4, 2009.

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