Anti-Hamartin Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M900058

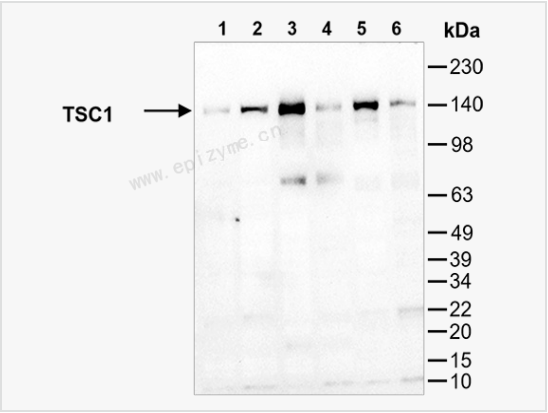
Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	28R23N59
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Hamartin
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Hamartin Mouse mAb [28R23N59] is for research use only and not for use in diagnostic or therapeutic procedures.

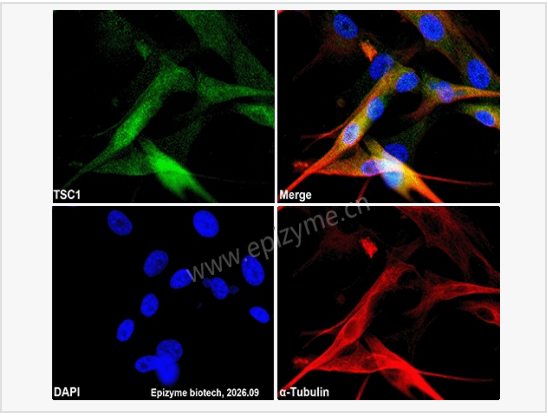
Protein Information

Synonyms	KIAA0243; TSC; TSC1; Hamartin; Tuberous sclerosis 1 protein.
Calculated MW	Calculated MW: 128 kDa; Observed MW: 140 kDa
Uniprot ID	Q92574
Gene ID	7248
Background	This gene is a tumor suppressor gene that encodes the growth inhibitory protein hamartin. The encoded protein interacts with and stabilizes the GTPase activating protein tuberin. This hamartin-tuberin complex negatively regulates mammalian target of rapamycin complex 1 (mTORC1) signaling which is a major regulator of anabolic cell growth. This protein also functions as a co-chaperone for Hsp90 that inhibits its ATPase activity. This protein functions as a facilitator of Hsp90-mediated folding of kinase and non-kinase clients, including TSC2 and thereby preventing their ubiquitination and proteasomal degradation. Mutations in this gene have been associated with tuberous sclerosis and lymphangioleiomyomatosis. [provided by RefSeq, May 2022]
Cellular Location	Lysosome membrane; Peripheral membrane protein. Cytoplasm, cytosol. Note: Recruited to lysosomal membranes in a RHEB-dependent process in absence of nutrients (PubMed:24529379). In response to nutrients, the complex dissociates from lysosomal membranes and relocalizes to the cytosol (PubMed:24529379).
Tissue Location	Highly expressed in skeletal muscle, followed by heart, brain, placenta, pancreas, lung, liver and kidney (PubMed:9242607). Also expressed in embryonic kidney cells (PubMed:9242607).

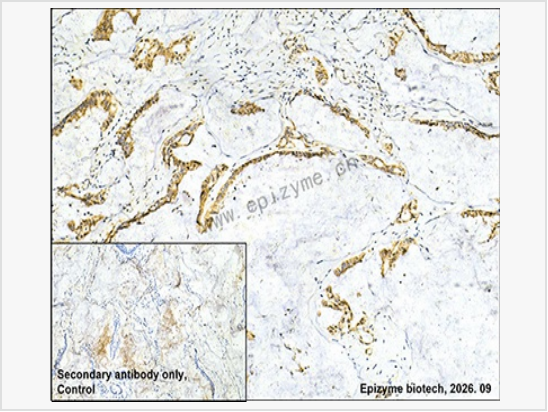
Validation Images



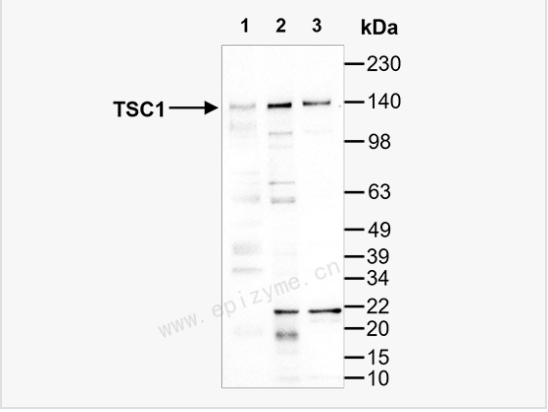
Western Blot - Anti-Hamartin Mouse mAb [28R23N59]
All lanes: M900058 at 1:1,000 dilution
Lane 1: 293T (Human embryonic kidney cell) whole cell lysates
Lane 2: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 3: U87 (Human malignant glioblastoma epithelial cell) whole cell lysates
Lane 4: K562 (Human chronic myeloid leukemia cell) whole cell lysates
Lane 5: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane 6: Mouse brain whole tissue lysates
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Lysates/proteins at 10 µg per lane.
Predicted band size: 128 kDa
Observed band size: 140 kDa
Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-Hamartin Mouse mAb [28R23N59]
Sample: U87 cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: M900058 at 1:100 dilution and α-tubulin Rabbit Monoclonal Antibody (Cat. No. LF213) at 1:100 dilution
Secondary antibodies: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green) and Goat anti-Rabbit (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-Hamartin Mouse mAb [28R23N59]
Sample: Paraformaldehyde-fixed, paraffin embedded human colonic cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M900058 at 1:100 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Western Blot - Anti-Hamartin Mouse mAb [28R23N59]
All lanes: M900058 at 1:1,000 dilution
Lane 1: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lane 2: Rat testis whole tissue lysates
Lane 3: Rat brain whole tissue lysates
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Lysates/proteins at 10 µg per lane.
Predicted band size: 128 kDa
Observed band size: 140 kDa
Developed using the ECL technique (Cat. No. SQ201).