

Product Name: KD-Validated Tuberin Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00227

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 200.6kDa

Antigen Information

Gene Name	TSC2
Alternative Names	Tuberin; PPP1R160; TSC4; LAM; Protein Phosphatase 1, Regulatory Subunit 160; Tuberous Sclerosis 2 Protein; Tuberous Sclerosis 2
Gene ID	7249.0
SwissProt ID	P49815
Immunogen	Recombinant protein of human Tuberin

Background

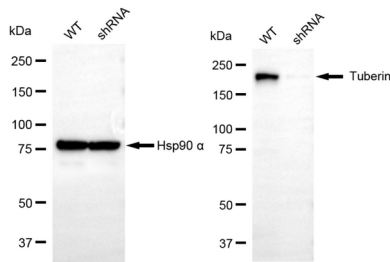
This gene is a tumor suppressor gene that encodes the growth inhibitory protein tuberin. Tuberin interacts with hamartin to form the TSC protein complex which functions in the control of cell growth. This TSC protein complex negatively regulates mammalian target of rapamycin complex 1 (mTORC1) signaling which is a major regulator of anabolic cell growth. Mutations in

this gene have been associated with tuberous sclerosis and lymphangioleiomyomatosis. [provided by RefSeq, May 2022]

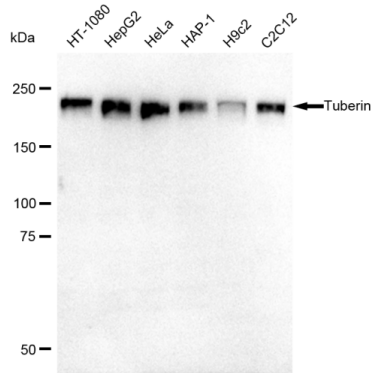
Research Area

Cell Biology,Signal Transduction,Epigenetics and Nuclear Signaling,Metabolism

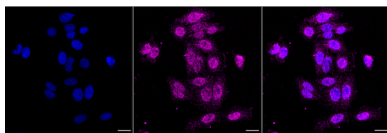
Image Data



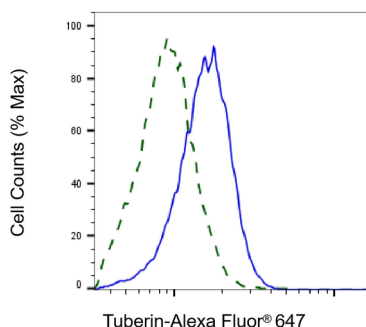
Western blotting analysis using Tuberin antibody (KVA00227). Tuberin expression in wild type (WT) and Tuberin shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Tuberin antibody (KVA00227, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



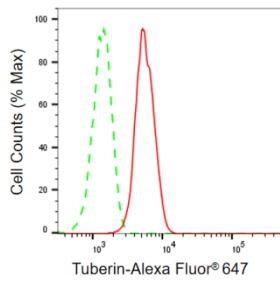
Western blotting analysis using Tuberin antibody (KVA00227). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Tuberin antibody (KVA00227, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Tuberin antibody (KVA00227, 1:1,000). Nuclei were stained blue with DAPI; Tuberin was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.



Validation of Tuberin knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Tuberin antibody (KVA00227, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Tuberin expression in HepG2 cells using Tuberin antibody (KVA00227, 1:2,000). Green, isotype control; Red, Tuberin.