

For Research Use Only

Tuberin/TSC2 Polyclonal antibody

Catalog Number: 24601-1-AP **6 Publications**



Basic Information

Catalog Number: 24601-1-AP	GenBank Accession Number: BC150300	Purification Method: Antigen affinity purification
Size: 550 µg/ml	GeneID (NCBI): 7249	Recommended Dilutions: WB 1:1000-1:8000
Source: Rabbit	UNIPROT ID: P49815	IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate
Isotype: IgG	Full Name: tuberous sclerosis 2	IHC 1:400-1:1600
Immunogen Catalog Number: AG18133	Calculated MW: 1807 aa, 201 kDa	IF 1:200-1:800
	Observed MW: 200 kDa	

Applications

Tested Applications: FC, IF/ICC, IHC, IP, WB, ELISA	Positive Controls: WB : HEK-293 cells, HeLa cells, K-562 cells, PC-3 cells, mouse brain tissue, rat brain tissue
Cited Applications: WB	IP : SH-SY5Y cells,
Species Specificity: human, mouse , rat	IHC : mouse brain tissue, human pancreas tissue
Cited Species: human	IF : HEK-293 cells,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

TSC2, also named as TSC4, FLJ43106 and LAM, acts as a GTPase-activating protein (GAP) for the small GTPase RHEB, a direct activator of the protein kinase activity of mTORC1. In complex with TSC1, TSC2 inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling. TSC2 implicated as a tumor suppressor. It is involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling. TSC2 stimulates weakly the intrinsic GTPase activity of the Ras-related proteins RAP1A and RAB5 in vitro. Mutations in TSC2 lead to constitutive activation of RAP1A in tumors. Mutations in either TSC2 or the related TSC1 (hamartin) gene cause tuberous sclerosis complex (TSC), an autosomal dominant disorder characterized by development of multiple, widespread non-malignant tumors.

Notable Publications

Author	Pubmed ID	Journal	Application
Changxiao Hu	34326874	J Oncol	WB
Mingyang Li	37914149	Transl Res	WB
Chaojun Yan	37589705	Elife	WB

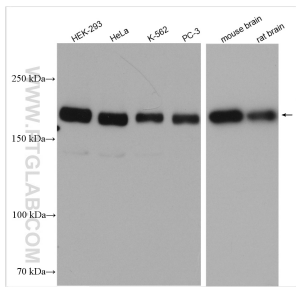
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

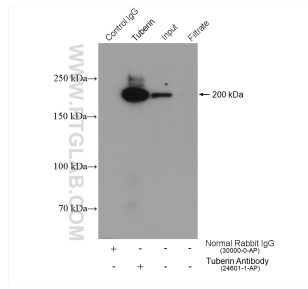
For technical support and original validation data for this product please contact:
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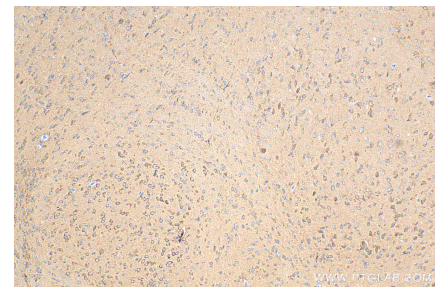
Selected Validation Data



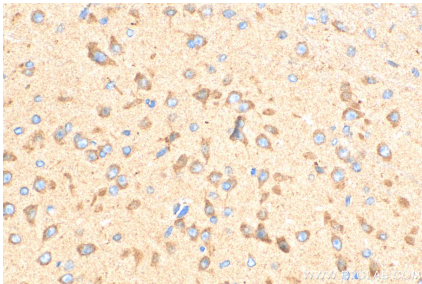
Various lysates were subjected to SDS PAGE followed by western blot with 24601-1-AP (Tuberin antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



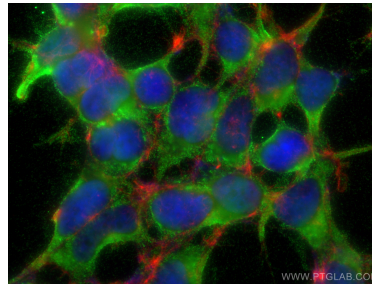
IP result of anti-Tuberin/TSC2 (IP:24601-1-AP, 4ug; Detection:24601-1-AP 1:1000) with SH-SY5Y cells lysate 1080 ug.



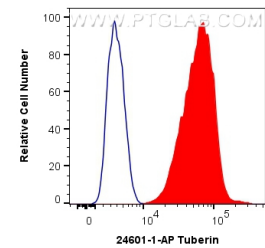
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 24601-1-AP (Tuberin antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 24601-1-AP (Tuberin antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HEK-293 cells using Tuberin/TSC2 antibody (24601-1-AP) at dilution of 1:400 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug Anti-Human Tuberin (24601-1-AP) and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).