

Immunotag™ Tuberin Polyclonal Antibody

Antibody Specification	
Catalog No.	ITT4774
Product Description	Immunotag™ Tuberin Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Tuberin
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from Tuberin, at AA range: 880-960
Specificity	Tuberin Polyclonal Antibody detects endogenous levels of Tuberin protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	TSC2
Accession No.	P49815 Q61037 P49816
Alternate Names	TSC2; TSC4; Tuberin; Tuberous sclerosis 2 protein

Antibody Specification

Description	tuberous sclerosis 2(TSC2) Homo sapiens Mutations in this gene lead to tuberous sclerosis complex. Its gene product is believed to be a tumor suppressor and is able to stimulate specific GTPases. The protein associates with hamartin in a cytosolic complex, possibly acting as a chaperone for hamartin. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Insulin Receptor, mTOR, B Cell Receptor, PI3K/Akt, AMPK
Protein Expression	Blood,Brain,Endometrium,Epithelium,Lymph,Lymphoblast,Peripheral blood leukocyte,Pla
Subcellular Localization	nucleus,cytoplasm,lysosome,Golgi apparatus,cytosol,membrane,TSC1-TSC2 complex,perinuclear region of cytoplasm,
Protein Function	Additional isoforms seem to exist. Experimental confirmation may be lacking for some isoforms,disease:Defects in TSC2 are a cause of lymphangiomyomatosis (LAM) [MIM:606690]. LAM is a progressive and often fatal lung disease characterized by a diffuse proliferation of abnormal smooth muscle cells in the lungs. It affects almost exclusively young women and can occur as an isolated disorder or in association with tuberous sclerosis complex.,disease:Defects in TSC2 are the cause of tuberous sclerosis complex (TSC) [MIM:191100]. The molecular basis of TSC is a functional impairment of the tuberin-hamartin complex. TSC is an autosomal dominant multi-system disorder that affects especially the brain, kidneys, heart, and skin. TSC is characterized by hamartomas (benign overgrowths predominantly of a cell or tissue type that occurs normally in the organ) and hamartias (developmental abnormalities of tissue combination). Clinical symptoms can range from benign hypopigmented macules of the skin to profound mental retardation with intractable seizures to premature death from a variety of disease-associated causes.,function:Implicated as a tumor suppressor. May have a function in vesicular transport, but may also play a role in the regulation of cell growth arrest and in the regulation of transcription mediated by steroid receptors. Interaction between TSC1 and TSC2 may facilitate vesicular docking. Specifically stimulates the intrinsic GTPase activity of the Ras-related protein RAP1A and RAB5. Suggesting a possible mechanism for its role in regulating cellular growth. Mutations in TSC2 leads to constitutive activation of RAP1A in tumors.,online information:TSC2 mutation db,PTM:Phosphorylation at Ser-1387, Ser-1418 or Ser-1420 does not affect interaction with TSC1.,similarity:Contains 1 Rap-GAP domain.,subcellular location:At steady state found in association with membranes.,subunit:Interacts with TSC1 and HERC1; the interaction with TSC1 stabilizes TSC2 and prevents the interaction with HERC1. May also interact with the adapter molecule RABEP1. The final complex contains TSC2 and RABEP1 linked to RAB5 (Probable). Interacts with HSPA1 and HSPA8.,tissue specificity:Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.