

Rabbit TSC2 Polyclonal Antibody | anti-TSC2 antibody

Phospho-Tuberin/TSC2 (Ser939) Antibody

CATALOG # AAA321413	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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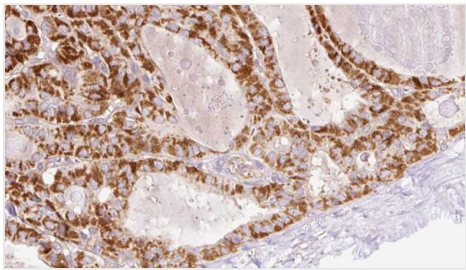
PRODUCT SYNONYMS

TSC2; Polyclonal Antibody; Phospho-Tuberin/TSC2 (Ser939) Antibody; FLJ43106; LAM; OTTHUMP00000158940; OTTHUMP00000198394; OTTHUMP00000198395; PPP1R160; Protein phosphatase 1; regulatory subunit 160; tsc2; TSC2_HUMAN; TSC4; TSC4 gene; formerly; Tuberin; Tuberous sclerosis 2; Tuberous sclerosis 2 protein; Tuberous sclerosis 2 protein homolog; anti-TSC2 antibody

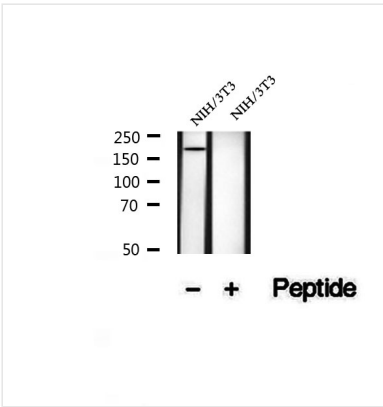
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-Tuberin/TSC2 (Ser939) antibody detects endogenous levels of Tuberin/TSC2.
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1807
Applicable Applications for anti-TSC2 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Tuberin/TSC2 around the phosphorylation site of Ser939.
Subcellular Location	Cytoplasm. Membrane. At steady state found in association with membranes.
Tissue Specificity	Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%)
Conjugation	Unconjugated
Epitope	Phospho Ser939
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA321413 at 1/100 staining Human thyroid cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts of NIH/3T3 cells, using Phospho-Tuberin/TSC2 (Ser939) Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TSC2 antibody	Function: In complex with TSC1, this tumor suppressor inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (PubMed:12271141, PubMed:28215400). Acts as a GTPase-activating protein (GAP) for the small GTPase RHEB, a direct activator of the protein kinase activity of mTORC1 (PubMed:15340059). May also play a role in microtubule-mediated protein transport (By similarity). Also stimulates the intrinsic GTPase activity of the Ras-related proteins RAP1A and RAB5 (By similarity). Subunit Structure: Probably forms a complex composed of chaperones HSP90 and HSP70, co-chaperones STIP1/HOP, CDC37, PPP5C, PTGES3/p23, TSC1 and client protein TSC2 (PubMed:29127155). Probably forms a complex composed of chaperones HSP90 and HSP70, co-chaperones CDC37, PPP5C, TSC1 and client protein TSC2, CDK4, AKT, RAF1 and NR3C1; this complex does not contain co-chaperones STIP1/HOP and PTGES3/p23 (PubMed:29127155). Forms a complex containing HSP90AA1, TSC1 and TSC2; TSC1 is required to recruit TSC2 to the complex thereby stabilizing TSC2 (PubMed:29127155). Interacts with TSC1 and HERC1; the interaction with TSC1 stabilizes TSC2 and prevents the interaction with HERC1 (PubMed:9580671, PubMed:10585443, PubMed:15963462, PubMed:16464865). May also interact with the adapter molecule RABEP1 (PubMed:9045618). The final complex may contain TSC2 and RABEP1 linked to RAB5 (PubMed:9045618). Interacts with HSPA1 and HSPA8 (PubMed:15963462). Interacts with DAPK1 (PubMed:18974095). Interacts with FBXW5 (PubMed:18381890). Interacts with NAA10 (via C-terminal domain) (PubMed:20145209). Interacts with RRAGA (polyubiquitinated) (PubMed:25936802). Post-translational Modifications: Phosphorylation at Ser-1387, Ser-1418 or Ser-1420 does not affect interaction with TSC1. Phosphorylation at Ser-939 and Thr-1462 by PKB/AKT1 is induced by growth factor stimulation. Phosphorylation by AMPK activates it and leads to negatively regulates the mTORC1 complex. Phosphorylated at Ser-1798 by RPS6KA1; phosphorylation inhibits TSC2 ability to suppress mTORC1 signaling. Phosphorylated by DAPK1. Ubiquitinated by the DCX(FBXW5) E3 ubiquitin-protein ligase complex, leading to its subsequent degradation. Ubiquitinated by MYCBP2 independently of its phosphorylation status leading to subsequent degradation; association with TSC1 protects from ubiquitination.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	116256352
NCBI GeneID	7249
NCBI Accession #	NP_000539.2
NCBI GenBank Nucleotide #	NM_000548.4
UniProt Accession #	P49815; O75275; Q4LE71; Q8TAZ1; A7E2E2; B4DIL8; B4DIQ7; B4DRN2; B7Z2B8; C9J378
Molecular Weight	Observed: 200 kDa Predicted: 201 kDa
NCBI Official Full Name	tuberin isoform 1

NCBI Official Synonym Full Names	TSC complex subunit 2
NCBI Official Symbol	TSC2
NCBI Official Synonym Symbols	LAM; TSC4; PPP1R160
NCBI Protein Information	tuberin
UniProt Protein Name	Tuberin
UniProt Gene Name	TSC2
UniProt Synonym Gene Names	TSC4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/tsc2-antibody-immunohistochemistry-western-blot-elisa/321413>