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Phospho-TSC2(S1387) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP3338a

Specification

Phospho-TSC2(S1387) Antibody - Product Information

Application	**IF, DB,E**
Primary Accession	P49815
Other Accession	P49816, Q61037
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**

Phospho-TSC2(S1387) Antibody - Additional Information

Gene ID 7249

Other Names
Tuberin, Tuberous sclerosis 2 protein, TSC2, TSC4

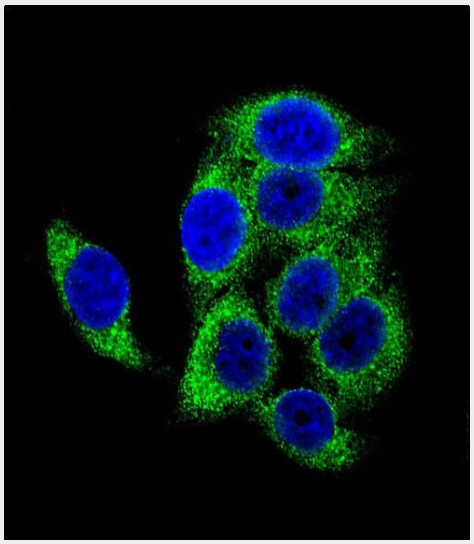
Target/Specificity
This TSC2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S1387 of human TSC2.

Dilution
IF~~1:10~50
DB~~1:500

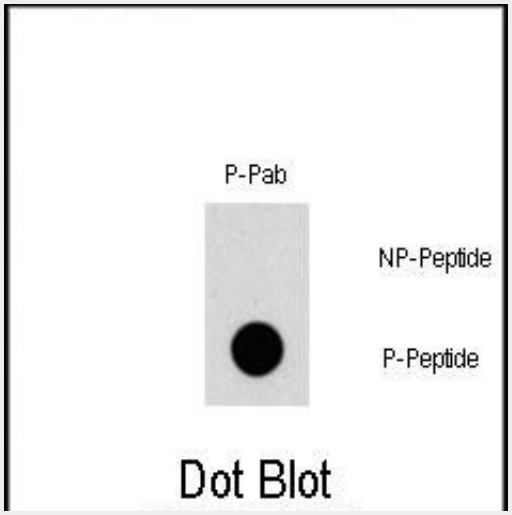
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-TSC2(S1387) Antibody is for



Confocal immunofluorescent analysis of Phospho-TSC2-S1387 Antibody(Cat#AP3338a) with hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



Dot blot analysis of Phospho-TSC2-S1387 polyclonal antibody (Cat# AP3338a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentration was 0.5ug per ml. P-Pab:

research use only and not for use in diagnostic or therapeutic procedures.

Phospho-TSC2(S1387) Antibody - Protein Information

Name TSC2

Synonyms TSC4

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).

Cellular Location
Cytoplasm. Membrane; Peripheral membrane protein. Note=At steady state found in association with membranes

Tissue Location
Liver, brain, heart, lymphocytes, fibroblasts, biliary epithelium, pancreas, skeletal muscle, kidney, lung and placenta

Phospho-TSC2(S1387) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

phospho-antibody; P-Peptide: phospho-peptide; NP-Peptide: non-phospho-peptide.

Phospho-TSC2(S1387) Antibody - Background

Mutations in TSC2 lead to tuberous sclerosis complex. The protein is believed to be a tumor suppressor and is able to specifically stimulate the intrinsic GTPase activity of the Ras-related protein RAP1A and RAB5. The protein associates with hamartin in a cytosolic complex, possibly acting as a chaperone for hamartin. TSC2 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.

Phospho-TSC2(S1387) Antibody - References

Li, Y., et al., Mol. Cell. Biol. 24(18):7965-7975 (2004).
Karbowniczek, M., et al., J. Biol. Chem. 279(29):29930-29937 (2004).
Corradetti, M.N., et al., Genes Dev. 18(13):1533-1538 (2004).
Birchenall-Roberts, M.C., et al., J. Biol. Chem. 279(24):25605-25613 (2004).
Lewis, J.C., et al., J. Med. Genet. 41(3):203-207 (2004).

- Flow Cytomety
- Cell Culture

Phospho-TSC2(S1387) Antibody - Citations

- Phospho-Î”Np63Î±/Rpn13-dependent regulation of LKB1 degradation modulates autophagy in cancer cells.