

Phospho-TSC2(S1420) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3480a

Specification

Phospho-TSC2(S1420) Antibody - Product Information

Application	IF, DB,E
Primary Accession	P49815
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	200608

Phospho-TSC2(S1420) 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 S1420 of human TSC2.

Dilution

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

Format

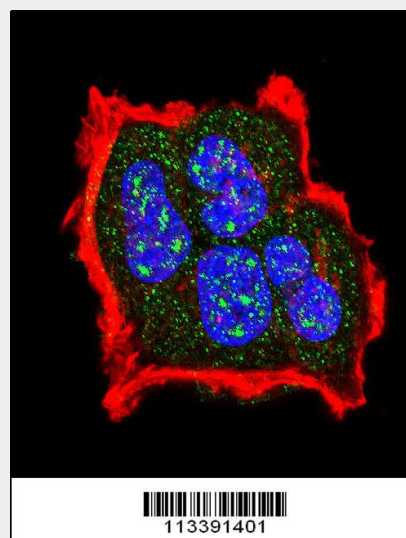
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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.

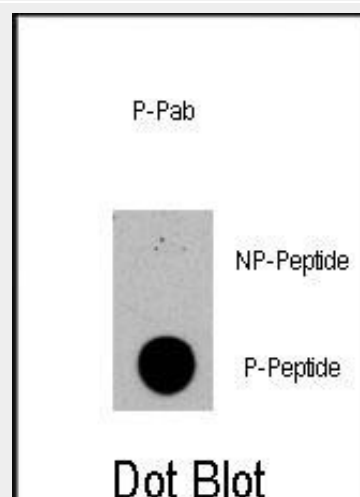
Precautions

Phospho-TSC2(S1420) Antibody is for research use only and not for use in



Confocal immunofluorescent analysis of Phospho-TSC2-S1420

Antibody(Cat#AP3480a) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).



Dot blot analysis of anti-TSC2-pS1420 Phospho-specific Pab (RB13391) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working

diagnostic or therapeutic procedures.

concentrations are 0.5ug per ml.

Phospho-TSC2(S1420) 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(S1420) 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(S1420) 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).

Phospho-TSC2(S1420) Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)