

Phospho-TSC2(S664) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3432a

Specification

Phospho-TSC2(S664) Antibody - Product Information

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

Phospho-TSC2(S664) 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 S664 of human TSC2.

Dilution

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

Format

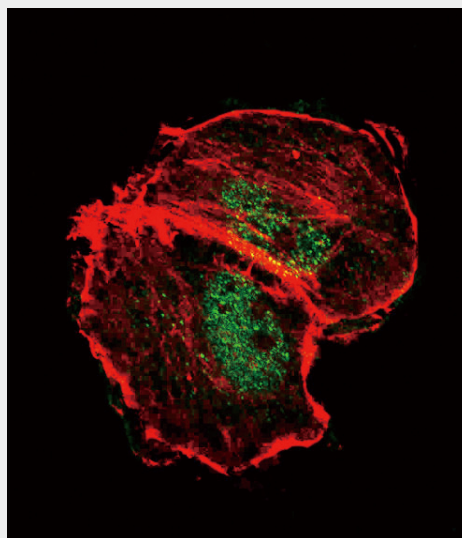
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

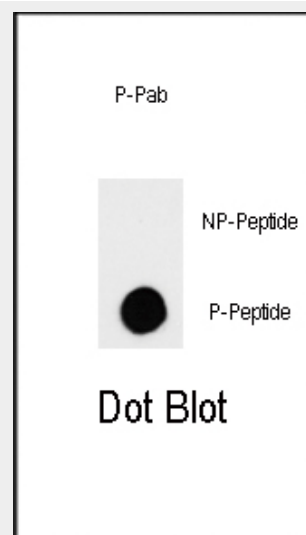
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-TSC2(S664) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Confocal immunofluorescent analysis of Phospho-TSC2-pS664 Antibody(Cat#AP3432a) 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).



Dot blot analysis of anti-TSC2-pS664 Phospho-specific Pab (Cat.#AP3432a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per

Phospho-TSC2(S664) 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

dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-TSC2(S664) 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(S664) 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(S664) 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](#)