

Phospho-TSC1(S505) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3470a

Specification

Phospho-TSC1(S505) Antibody - Product Information

Application	DB,E
Primary Accession	Q92574
Other Accession	Q9EP53
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Calculated MW	129767

Phospho-TSC1(S505) Antibody - Additional Information

Gene ID 7248

Other Names

Hamartin, Tuberous sclerosis 1 protein, TSC1, KIAA0243, TSC

Target/Specificity

This TSC1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S505 of human TSC1.

Dilution

DB~~1:500

Format

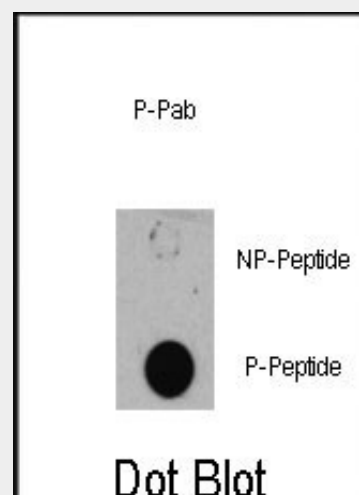
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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-TSC1(S505) Antibody is for



Dot blot analysis of anti-TSC1-pS505 Phospho-specific Pab (RB13337) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-TSC1(S505) Antibody - Background

TSC1 is implicated as a tumor suppressor, and may have a function in vesicular transport. Interaction between TSC1 and TSC2 may facilitate vesicular docking. Defects in TSC1 are the cause of tuberous sclerosis complex (TSC). The molecular basis of TSC is a functional impairment of the hamartin-tuberin complex. TSC is an autosomal dominant multi-system disorder that affects especially the brain, kidneys, heart, and skin. Defects in TSC1 may be a cause of focal cortical dysplasia of Taylor balloon cell type (FCDBC). FCDBC is a subtype of cortical dysplasias linked to chronic intractable epilepsy. Cortical dysplasias display a broad spectrum of structural changes, which appear to result from changes in proliferation, migration, differentiation, and apoptosis of neuronal precursors and neurons during

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

Phospho-TSC1(S505) Antibody - Protein Information

Name TSC1

Synonyms KIAA0243, TSC

Function

In complex with TSC2, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (PubMed:12271141, PubMed:28215400). Seems not to be required for TSC2 GAP activity towards RHEB (PubMed:15340059). Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (By similarity). Acts as a co-chaperone for HSP90AA1 facilitating HSP90AA1 chaperoning of protein clients such as kinases, TSC2 and glucocorticoid receptor NR3C1 (PubMed:29127155). Increases ATP binding to HSP90AA1 and inhibits HSP90AA1 ATPase activity (PubMed:29127155). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (PubMed:29127155). Recruits TSC2 to HSP90AA1 and stabilizes TSC2 by preventing the interaction between TSC2 and ubiquitin ligase HERC1 (PubMed:16464865, PubMed:29127155).

cortical development.

Phospho-TSC1(S505) Antibody - References

Wu, J., et al., J. Cutan. Pathol. 31(5):383-387 (2004).
Lewis, J.C., et al., J. Med. Genet. 41(3):203-207 (2004).
J, et al., J. Child Neurol. 19(2):102-106 (2004).
Murthy, V., et al., J. Biol. Chem. 279(2):1351-1358 (2004).
Astrinidis, A., et al., J. Biol. Chem. 278(51):51372-51379 (2003).

Cellular Location

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

Tissue Location

Highly expressed in skeletal muscle, followed by heart, brain, placenta, pancreas, lung, liver and kidney. Also expressed in embryonic kidney cells

Phospho-TSC1(S505) 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](#)