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Phospho-TSC2(S1411) Blocking Peptide

Synthetic peptide
Catalog # BP3866a

Specification

Phospho-TSC2(S1411) Blocking Peptide - Product Information

Primary Accession	P49815
Other Accession	NP_000539.2

Phospho-TSC2(S1411) Blocking Peptide - Additional Information

Gene ID 7249

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

Target/Specificity
The synthetic peptide sequence is selected from aa 1404-1418 of HUMAN TSC2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-TSC2(S1411) Blocking Peptide - Protein Information

Name TSC2

Synonyms TSC4

Function
In complex with TSC1, this tumor suppressor inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of

Phospho-TSC2(S1411) Blocking Peptide - Background

Mutations in this gene lead to tuberous sclerosis complex.
Its gene product is believed to be a tumor suppressor and is able
to stimulate specific GTPases. The protein associates with hamartin
in a cytosolic complex, possibly acting as a chaperone for
hamartin. Alternative splicing results in multiple transcript
variants encoding different isoforms.

Phospho-TSC2(S1411) Blocking Peptide - References

Slattery, M.L., et al. Carcinogenesis 31(9):1604-1611(2010)
Larson, Y., et al. J. Biol. Chem. 285(32):24987-24998(2010)
Mehta, M.S., et al. Breast Cancer Res. Treat. (2010) In press :
Mieulet, V., et al. Trends Mol Med 16(7):329-335(2010)
Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)

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(S1411) Blocking Peptide - Protocols

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

- Blocking Peptides