

TSC2 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP19821a**Specification****TSC2 Blocking Peptide (N-term) - Product Information**

Primary Accession [P49815](#)
Other Accession [P49816](#), [O61037](#),
[NP_000539.2](#)

TSC2 Blocking Peptide (N-term) - Additional Information

Gene ID 7249

Other Names

Tuberin, Tuberous sclerosis 2 protein, TSC2, TSC4

Target/Specificity

The synthetic peptide sequence is selected from aa 494-508 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.

TSC2 Blocking Peptide (N-term) - Protein Information

Name TSC2

Synonyms TSC4

Function

In complex with TSC1, this tumor suppressor inhibits the nutrient-mediated or

TSC2 Blocking Peptide (N-term) - 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.

TSC2 Blocking Peptide (N-term) - 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)

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

TSC2 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)