

**Phospho-TSC2(S1388) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP3899a****Specification****Phospho-TSC2(S1388) Blocking Peptide - Product Information**

Primary Accession [P49815](#)  
Other Accession [P49816](#), [O61037](#),  
[NP\\_000539.2](#)

**Phospho-TSC2(S1388) 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 1381-1395 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(S1388) Blocking Peptide - Protein Information**

**Name** TSC2

**Synonyms** TSC4

**Function**

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

**Phospho-TSC2(S1388) 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(S1388) 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)

growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (PubMed:<a href="http://www.uniprot.org/citations/12271141" target="\_blank">12271141</a>, PubMed:<a href="http://www.uniprot.org/citations/28215400" target="\_blank">28215400</a>). Acts as a GTPase-activating protein (GAP) for the small GTPase RHEB, a direct activator of the protein kinase activity of mTORC1 (PubMed:<a href="http://www.uniprot.org/citations/15340059" target="\_blank">15340059</a>). 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(S1388) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)