

**Phospho-mouse TSC1(S321) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP3813a****Specification****Phospho-mouse TSC1(S321) Blocking Peptide - Product Information**

Primary Accession [Q9EP53](#)  
Other Accession [NP\\_075025.2](#)

**Phospho-mouse TSC1(S321) Blocking Peptide - Additional Information**

**Gene ID** 64930

**Other Names**

Hamartin, Tuberous sclerosis 1 protein homolog, Tsc1, Kiaa0243

**Target/Specificity**

The synthetic peptide sequence is selected from aa 315-328 of MOUSE Tsc1

**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-mouse TSC1(S321) Blocking Peptide - Protein Information**

**Name** Tsc1

**Synonyms** Kiaa0243

**Function**

In complex with TSC2, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1

**Phospho-mouse TSC1(S321) Blocking Peptide - Background**

In complex with TSC2, inhibits the nutrient-mediated or growth factor-stimulated phosphorylation of S6K1 and EIF4EBP1 by negatively regulating mTORC1 signaling (By similarity). Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (By similarity).

**Phospho-mouse TSC1(S321) Blocking Peptide - References**

Kladney, R.D., et al. Cancer Res. 70(21):8937-8947(2010)  
Sathaliyawala, T., et al. Immunity 33(4):597-606(2010)  
Scott, C.L., et al. Am. J. Physiol. Lung Cell Mol. Physiol. 299 (4), L455-L471 (2010) :  
Bartolome, A., et al. Endocrinology 151(7):3084-3094(2010)  
Squarize, C.H., et al. PLoS ONE 5 (5), E10643 (2010) :

and EIF4EBP1 by negatively regulating mTORC1 signaling (By similarity). Implicated as a tumor suppressor. Involved in microtubule-mediated protein transport, but this seems to be due to unregulated mTOR signaling (PubMed: [16707451](http://www.uniprot.org/citations/16707451)). Acts as a co-chaperone for HSP90AA1 facilitating HSP90AA1 chaperoning of protein clients such as kinases, TSC2 and glucocorticoid receptor NR3C1 (PubMed: [29127155](http://www.uniprot.org/citations/29127155)). Increases ATP binding to HSP90AA1 and inhibits HSP90AA1 ATPase activity (PubMed: [29127155](http://www.uniprot.org/citations/29127155)). Competes with the activating co-chaperone AHSA1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (By similarity). Recruits TSC2 to HSP90AA1 and stabilizes TSC2 by preventing the interaction between TSC2 and ubiquitin ligase HERC1 (By similarity).

#### **Cellular Location**

Cytoplasm

{ECO:0000250|UniProtKB:Q92574}.

Membrane

{ECO:0000250|UniProtKB:Q92574};

Peripheral membrane protein

{ECO:0000250|UniProtKB:Q92574}.

Note=At steady state found in association with membranes.

{ECO:0000250|UniProtKB:Q92574}

#### **Phospho-mouse TSC1(S321) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)