

TSC1 Blocking Peptide (Center S682)
Synthetic peptide
Catalog # BP19728c**Specification****TSC1 Blocking Peptide (Center S682) - Product Information**

Primary Accession [Q92574](#)
Other Accession [Q9Z136](#),
[NP_000359.1](#),
[NP_001155898.1](#),
[NP_001155899.1](#)

TSC1 Blocking Peptide (Center S682) - Additional Information**Gene ID** 7248**Other Names**

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

Target/Specificity

The synthetic peptide sequence is selected
from aa 675-689 of HUMAN 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.

TSC1 Blocking Peptide (Center S682) - Protein Information**Name** TSC1**Synonyms** KIAA0243, TSC**Function****TSC1 Blocking Peptide (Center S682) - Background**

This gene encodes a growth inhibitory protein
thought to
play a role in the stabilization of tuberin.
Mutations in this gene
have been associated with tuberous sclerosis.
Alternative splicing
results in multiple transcript variants.

TSC1 Blocking Peptide (Center S682) - References

Hoogeveen-Westerveld, M., et al. Biochim.
Biophys. Acta 1802(9):774-781(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)
Guo, L., et al. Acta Biochim. Biophys. Sin.
(Shanghai) 42(4):266-273(2010)

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).

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

**TSC1 Blocking Peptide (Center S682) -
Protocols**

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

- [Blocking Peptides](#)