

#8350 Store at -20°C

## Phospho-TSC2 Antibody Sampler Kit

1 Kit (4 x 20 microliters)



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Tuberin/TSC2 (D93F12) XP® Rabbit mAb	4308	20 µl	200 kDa	Rabbit IgG
Phospho-Tuberin/TSC2 (Ser939) Antibody	3615	20 µl	200 kDa	Rabbit
Phospho-Tuberin/TSC2 (Thr1462) (5B12) Rabbit mAb	3617	20 µl	200 kDa	Rabbit IgG
Phospho-Tuberin/TSC2 (Ser1387) Antibody	5584	20 µl	200 kDa	Rabbit
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

The Phospho-TSC2 Antibody Sampler Kit provides an economical means to investigate protein folding within the cell. The kit contains enough primary and secondary antibodies to perform two western blot experiments per primary antibody.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Background

Tuberin is a product of the TSC2 tumor suppressor gene and an important regulator of cell proliferation and tumor development (1). Mutations in either *TSC2* or the related *TSC1* (hamartin) gene cause tuberous sclerosis complex (TSC), an autosomal dominant disorder characterized by development of multiple, widespread non-malignant tumors (2). Tuberin is directly phosphorylated at Thr1462 by Akt/PKB (3). Phosphorylation at Thr1462 and Tyr1571 regulates tuberin-hamartin complexes and tuberin activity (3-5). In addition, tuberin inhibits the mammalian target of rapamycin (mTOR), which promotes inhibition of p70 S6 kinase, activation of eukaryotic initiation factor 4E binding protein 1 (4E-BP1, an inhibitor of translation initiation), and eventual inhibition of translation (3,6,7).

### Background References

1. Soucek, T. et al. (1998) *Proc Natl Acad Sci U S A* 95, 15653-8.
2. Sparagana, S.P. and Roach, E.S. (2000) *Curr Opin Neurol* 13, 115-9.
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7. Inoki, K. et al. (2002) *Nat Cell Biol* 4, 648-57.

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