

**Phospho-PI3 Kinase Class III (Ser249)
Antibody**

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Transfected Only	100	Rabbit	#Q8NEB9	5289

**Product Usage
Information****Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

Phospho-PI3 Kinase Class III (Ser249) Antibody recognizes transfected levels of PI3 kinase class III protein only when phosphorylated at Ser249.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser249 of human PI3 kinase class III protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Three distinct types of phosphoinositide 3-kinases (PI3K) have been characterized. Unlike other PI3Ks, PI3K class III catalyzes the phosphorylation of phosphatidylinositol at the D3 position, producing phosphatidylinositol-3-phosphate (PIP3) (1). PI3K class III is the mammalian homolog of Vps34, first identified in yeast. PI3K class III interacts with the regular subunit p150, the mammalian homolog of Vps15, which regulates cellular membrane association through myristoylation (2,3). PIP3 recruits several proteins with FYVE or PX domains to membranes regulating vesicular transport and protein sorting (4). Moreover, PI3K class III has been shown to regulate autophagy, trimeric G-protein signaling, and the mTOR nutrient-sensing pathway (5). PI3 Kinase Class III/VPS34 is phosphorylated at Ser249 by the autophagy kinase ULK1 (6).

Background References

1. Odorizzi, G. et al. (2000) *Trends Biochem Sci* 25, 229-35.
2. Panaretou, C. et al. (1997) *J Biol Chem* 272, 2477-85.
3. Kihara, A. et al. (2001) *J Cell Biol* 152, 519-30.
4. Corvera, S. (2001) *Traffic* 2, 859-66.
5. Yan, Y. and Backer, J.M. (2007) *Biochem Soc Trans* 35, 239-41.
6. Egan, D.F. et al. (2015) *Mol Cell*, .

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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