

**PI3 Kinase Class III (D9A5) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	100	Rabbit	#Q8NEB9	5289

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

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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.

**Specificity/Sensitivity**

PI3 Kinase Class III (D9A5) Rabbit mAb detects endogenous levels of total PI3K class III protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide surrounding Lys630 of human PI3 kinase class III.

**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).

**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.

**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 **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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