

#3358 Store at -20°C

PI3 Kinase Class III (D4E2) Rabbit mAb



100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #5289
Swiss-Prot Acc. #Q6PF93

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, M, R, Mk	100 kDa	Rabbit IgG**

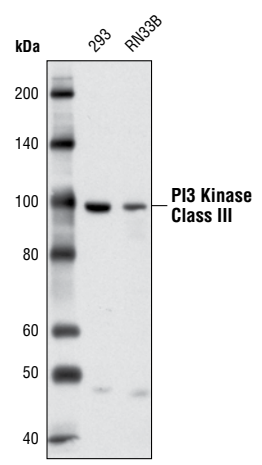
Background: Three distinct types of phosphoinositide 3-kinases (PI3K) have been characterized. Unlike other PI3Ks, PI3K class III catalyzes the phosphorylation of phosphatidylinositol at the D3 position, producing phosphatidylinositol-3-phosphate (PIP3) (1). PI3K class III is the mammalian homolog of 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).

Specificity/Sensitivity: PI3 Kinase Class III (D4E2) Rabbit mAb detects endogenous levels of total PI3K class III protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues in the amino-terminal sequence of human PI3K class III.

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.



Western blot analysis of extracts from 293 and RN33B cells using PI3 Kinase Class III (D4E2) Rabbit mAb.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.