Revision 1

Store at -20C

#9780

PP2A Antibody Sampler Kit

1 Kit (3 x 20 microliters)

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
PP2A A Subunit (81G5) Rabbit mAb	2041	20 µl	62 kDa	Rabbit IgG
PP2A B Subunit (100C1) Rabbit mAb	2290	20 µl	52 kDa	Rabbit IgG
PP2A C Subunit (52F8) Rabbit mAb	2259	20 µl	36, 38 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The PP2A Antibody Sampler Kit provides an economical means of evaluating PP2A protein. The kit contains enough primary and secondary antibodies to perform two western blots with each 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

Protein phosphatase type 2A (PP2A) is an essential protein serine/threonine phosphatase that is conserved in all eukaryotes. PP2A is a key enzyme within various signal transduction pathways as it regulates fundamental cellular activities such as DNA replication, transcription, translation, metabolism, cell cycle progression, cell division, apoptosis and development (1-3). The core enzyme consists of catalytic C and regulatory A (or PR65) subunits, with each subunit represented by α and β isoforms (1). Additional regulatory subunits belong to four different families of unrelated proteins. Both the B (or PR55) and B' regulatory protein families contain α, β, γ and δ isoforms, with the B' family also including an ε protein. B'' family proteins include PR72, PR130, PR59 and PR48 isoforms, while striatin (PR110) and SG2NA (PR93) are both members of the B''' regulatory protein family. These B subunits competitively bind to a shared binding site on the core A subunit (1). This variable array of holoenzyme components, particularly regulatory B subunits, allows PP2A to act in a diverse set of functions. PP2A function is regulated by expression, localization, holoenzyme composition and post-translational modification. Phosphorylation of PP2A at Tyr307 by Src occurs in response to EGF or insulin and results in a substantial reduction of PP2A activity (4). Reversible methylation on the carboxyl group of Leu309 of PP2A has been observed (5,6). Methylation alters the conformation of PP2A, as well as its localization and association with B regulatory subunits (6-8).

Background References

1. Janssens, V. and Goris, J. (2001) *Biochem J* 353, 417-39.
2. Zolnierowicz, S. (2000) *Biochem Pharmacol* 60, 1225-35.
3. Millward, T.A. et al. (1999) *Trends Biochem Sci* 24, 186-91.
4. Chen, J. et al. (1992) *Science* 257, 1261-4.
5. Turowski, P. et al. (1995) *J Cell Biol* 129, 397-410.
6. Lee, J. et al. (1996) *Proc Natl Acad Sci U S A* 93, 6043-7.
7. Tolstykh, T. et al. (2000) *EMBO J* 19, 5682-91.
8. Yu, X.X. et al. (2001) *Mol Biol Cell* 12, 185-99.

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