Revision 1

Store at -20C

#30590

PTEN and PDK1 Antibody Sampler Kit II

1 Kit (4 x 20 microliters)

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
PTEN (D4.3) XP® Rabbit mAb	9188	20 µl	54 kDa	Rabbit IgG
Phospho-PTEN (Ser380/Thr382/383) (44A7) Rabbit mAb	9549	20 µl	54 kDa	Rabbit IgG
PDK1 (D37A7) Rabbit mAb	5662	20 µl	58-68 kDa	Rabbit IgG
Phospho-PDK1 (Ser241) (C49H2) Rabbit mAb	3438	20 µl	58 to 68 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 PTEN and PDK1 Antibody Sampler Kit II provides an economical means to evaluate two key enzymes that regulate multiple signaling pathways. The kit includes enough antibodies to perform two western blot experiments with each 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 antibodies.*

Background

PTEN (phosphatase and tensin homologue deleted on chromosome ten), also referred to as MMAC (mutated in multiple advanced cancers) phosphatase, is a tumor suppressor implicated in a wide variety of human cancers (1). PTEN encodes a 403 amino acid polypeptide originally described as a dual-specificity protein phosphatase (2). The main substrates of PTEN are inositol phospholipids generated by the activation of the phosphoinositide 3-kinase (PI3K) (3). PTEN is a major negative regulator of the PI3K/Akt signaling pathway (1,4,5). PTEN possesses a carboxy-terminal, noncatalytic regulatory domain with three phosphorylation sites (Ser380, Thr382, and Thr383) that regulate PTEN stability and may affect its biological activity (6,7). PTEN regulates p53 protein levels and activity (8) and is involved in G protein-coupled signaling during chemotaxis (9,10).
Phosphoinositide-dependent protein kinase 1 (PDK1) plays a central role in many signal transduction pathways (11,12), including the activation of Akt and the PKC isoenzymes p70 S6 kinase and RSK (13). Through its effects on these kinases, PDK1 is involved in the regulation of a wide variety of processes, including cell proliferation, differentiation, and apoptosis.

Background References

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