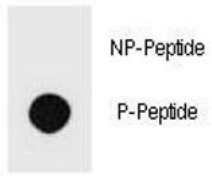
PTEN (pS229) Antibody / Phospho-PTEN Ser229 Antibody (F48735)

Catalog No.	Formulation	Size
F48735-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48735-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P60484
Applications	Dot blot: 1:500
Limitations	This PTEN (pS229) Antibody / Phospho-PTEN Ser229 Antibody is available for research use only.



PTEN (pS229) Antibody Phosphopeptide Dot Blot. Dot blot analysis was performed with PTEN (pS229) Antibody using 50 ng per dot of phosphorylated (P-peptide) and non-phosphorylated (NP-peptide) PTEN peptides. A strong signal is detected with the phosphorylated peptide, while no detectable signal is observed with the corresponding non-phosphorylated peptide. This Phospho-PTEN Ser229 Antibody demonstrates phosphorylation-specific recognition of PTEN at Ser229.

Description

PTEN (pS229) Antibody / Phospho-PTEN Ser229 Antibody recognizes PTEN when phosphorylated at serine 229. PTEN, or phosphatase and tensin homolog, is a major tumor suppressor that negatively regulates phosphoinositide 3-kinase (PI3K)/AKT signaling. Through its lipid phosphatase activity, PTEN converts phosphatidylinositol (3,4,5)-trisphosphate (PIP3) to phosphatidylinositol (4,5)-bisphosphate (PIP2), opposing PI3K activity and limiting downstream AKT signaling

involved in cell growth, proliferation, metabolism and survival.

PTEN function is controlled by multiple post-translational modifications, including phosphorylation at several serine and threonine residues. These modifications can influence PTEN stability, catalytic activity, protein interactions and subcellular localization. Phosphorylation therefore provides an important regulatory mechanism through which cells can modify PTEN activity without necessarily changing total PTEN protein abundance. A PTEN (pS229) Antibody provides a means of investigating the phosphorylated Ser229 form separately from total PTEN.

Serine 229 is located within the C2 domain of PTEN, a region involved in membrane association and interactions that contribute to PTEN regulation. Phosphorylation within PTEN can affect its biochemical and cellular behavior in a site- and context-dependent manner. Studying phosphorylation at Ser229 can help characterize signaling mechanisms that regulate PTEN and determine how changes in PTEN phosphorylation relate to its tumor suppressor functions.

PTEN is frequently altered in human cancer through mutation, deletion, reduced expression or changes in its regulatory mechanisms. Loss of effective PTEN activity can increase PI3K/AKT pathway signaling and promote cellular proliferation and survival. Because phosphorylation can modify PTEN behavior independently of total protein expression, phospho-specific analysis can complement measurements of overall PTEN abundance in studies of tumor signaling and pathway regulation.

Researchers examining PTEN phosphorylation and other post-translational signaling events can explore our Phospho Antibody - Phosphorylation Specific Antibodies page for additional phosphorylation-specific reagents targeting proteins involved in cellular signaling, growth and disease biology.

NSJ Bioreagents offers PTEN (pS229) Antibody for research into phosphorylation-dependent regulation of PTEN. A Phospho-PTEN Ser229 Antibody can support studies of PTEN signaling, PI3K/AKT pathway regulation, tumor suppressor biology and mechanisms involving site-specific PTEN phosphorylation.

For broader research into PTEN expression and tumor suppressor function, explore our PTEN Antibody page for additional reagents targeting phosphatase and tensin homolog.

Application Notes

Titration of the PTEN (pS229) Antibody / Phospho-PTEN Ser229 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This phospho-PTEN antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS229 of human PTEN.

Storage

Aliquot the phospho-PTEN antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PTEN (pS229) antibody, Phospho-PTEN Ser229 antibody, PTEN phospho-Ser229 antibody, PTEN pSer229 antibody, PTEN Ser229 antibody, Phosphatase and Tensin Homolog antibody

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