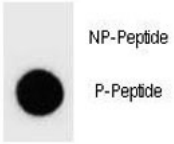
PTEN (pY68) Antibody / Phospho-PTEN Tyr68 Antibody (F48745)

Catalog No.	Formulation	Size
F48745-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48745-0.08ML	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, Xenopus
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 (pY68) Antibody / Phospho-PTEN Tyr68 Antibody is available for research use only.



PTEN (pY68) Antibody Phosphopeptide Dot Blot. Dot blot analysis was performed with PTEN (pY68) 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 Tyr68 Antibody demonstrates phosphorylation-specific recognition of PTEN at Tyr68.

Description

PTEN (pY68) Antibody / Phospho-PTEN Tyr68 Antibody recognizes PTEN when phosphorylated at tyrosine 68. PTEN, or phosphatase and tensin homolog, is a major tumor suppressor and negative regulator of phosphoinositide 3-kinase (PI3K)/AKT signaling. Through its lipid phosphatase activity, PTEN reduces levels of phosphatidylinositol (3,4,5)-trisphosphate (PIP3), opposing PI3K activity and limiting downstream signaling involved in cell proliferation, survival, growth and metabolism.

PTEN activity is regulated by multiple post-translational modifications, including phosphorylation at serine, threonine and tyrosine residues. Tyr68 is located within the N-terminal phosphatase domain of PTEN, the region responsible for its catalytic activity. Phosphorylation within or near functionally important regions of PTEN may influence its molecular interactions, localization or activity. A PTEN (pY68) Antibody enables researchers to distinguish the Tyr68-phosphorylated form from total PTEN protein when investigating phosphorylation-dependent regulation.

Tyrosine phosphorylation provides a mechanism through which PTEN can respond to changes in cellular signaling. The phosphorylation state of individual PTEN residues may vary according to cellular context and upstream signaling activity, potentially affecting how PTEN participates in regulatory protein networks. Analysis of Tyr68 phosphorylation can therefore complement measurements of total PTEN abundance and help characterize changes in the post-translational state of the protein.

PTEN regulation is particularly relevant to cancer research because impaired PTEN function can result in increased PI3K/AKT signaling and promote abnormal cell proliferation and survival. PTEN can be disrupted through mutation, deletion, reduced expression and altered post-translational regulation. Phospho-specific analysis provides an additional approach for studying PTEN regulatory states that may occur even when total PTEN protein remains detectable.

Researchers investigating PTEN phosphorylation and related signaling mechanisms can explore our Phospho Antibody - Phosphorylation Specific Antibodies page for additional reagents targeting site-specific phosphorylation events involved in signal transduction, growth regulation and disease biology.

NSJ Bioreagents offers PTEN (pY68) Antibody for research into phosphorylation-dependent regulation of PTEN. A Phospho-PTEN Tyr68 Antibody can support studies of PTEN signaling, PI3K/AKT pathway regulation, tumor suppressor biology and mechanisms involving site-specific tyrosine 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 (pY68) Antibody / Phospho-PTEN Tyr68 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This PTEN (pY68) Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pY68 of human PTEN.

Storage

Aliquot the PTEN (pY68) Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PTEN (pY68) antibody, Phospho-PTEN Tyr68 antibody, PTEN phospho-Tyr68 antibody, PTEN pTyr68 antibody, PTEN Tyr68 antibody, Phosphatase and Tensin Homolog antibody