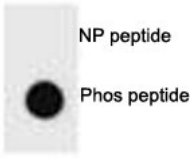
PTEN (pS385) Antibody / Phospho-PTEN Ser385 Antibody (F48755)

Catalog No.	Formulation	Size
F48755-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48755-0.08ML	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 (pS385) Antibody / Phospho-PTEN Ser385 Antibody is available for research use only.



PTEN (pS385) Antibody Phosphopeptide Dot Blot. Dot blot analysis was performed with PTEN (pS385) Antibody using 50 ng per dot of phosphorylated (Phos 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 Ser385 Antibody demonstrates phosphorylation-specific recognition of PTEN at Ser385.

Description

PTEN (pS385) Antibody / Phospho-PTEN Ser385 Antibody recognizes PTEN when phosphorylated at serine 385. PTEN, or phosphatase and tensin homolog, is a major tumor suppressor and negative regulator of phosphoinositide 3-kinase (PI3K)/AKT signaling. Its lipid phosphatase activity converts phosphatidylinositol (3,4,5)-trisphosphate (PIP3) to phosphatidylinositol (4,5)-bisphosphate (PIP2), opposing PI3K activity and limiting downstream signals that regulate cell

proliferation, survival, growth and metabolism.

PTEN activity is regulated by several post-translational modifications, with phosphorylation of its C-terminal region playing an important role in controlling protein conformation, stability, membrane association and catalytic activity. Serine 385 is located within this regulatory C-terminal tail and forms part of a well-studied phosphorylation region that also includes nearby serine and threonine residues. Phosphorylation within this region can promote a more closed PTEN conformation and influence its interactions with the plasma membrane and other cellular components.

Ser385 phosphorylation is therefore relevant to understanding the balance between PTEN stability and functional accessibility. C-terminal phosphorylation can increase PTEN protein stability while reducing membrane association and phosphatase activity toward membrane-associated PIP3. Conversely, changes in phosphorylation state may alter PTEN conformation and its ability to interact with membranes and regulatory proteins. A PTEN (pS385) Antibody enables investigation of this site-specific phosphorylated form independently of measurements of total PTEN abundance.

PTEN regulation is particularly important in cancer biology because loss or impairment of PTEN function can result in increased PI3K/AKT pathway activity. PTEN is frequently altered in human tumors through mutation, deletion, reduced expression and disruption of regulatory mechanisms. Studying phosphorylation at Ser385 can complement total PTEN analysis by providing information about a regulatory state that may affect PTEN activity even when the protein remains expressed.

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

NSJ Bioreagents offers PTEN (pS385) Antibody for investigating phosphorylation-dependent regulation of PTEN. A Phospho-PTEN Ser385 Antibody can support research into PTEN regulation, PI3K/AKT signaling, tumor suppressor biology and the cellular mechanisms associated with 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 (pS385) Antibody / Phospho-PTEN Ser385 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This PTEN (pS385) Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS385 of human PTEN.

Storage

Aliquot the PTEN (pS385) Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PTEN (pS385) antibody, Phospho-PTEN Ser385 antibody, PTEN phospho-Ser385 antibody, PTEN pSer385 antibody, PTEN Ser385 antibody, Phosphatase and Tensin Homolog antibody

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