

## 12-4116: Phospho-PTEN (Ser380) (Clone: NA9) rabbit mAb

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	PTENS380-NA9
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human, Mouse
<b>Conjugate :</b>	Unconjugated
<b>Format :</b>	Purified
<b>Alternative Name :</b>	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase, Mutated in multiple advanced cancers 1, MMAC1, Phosphatase and tensin homolog, TEP1
<b>Isotype :</b>	Rabbit IgG1k
<b>Immunogen Information :</b>	A synthetic phospho-peptide corresponding to residues surrounding Ser380 of human phospho PTEN

### Description

PTEN has been identified as a tumor suppressor gene and has been found to be mutated in a significant number of human cancers, including prostate, brain, and breast cancer. PTEN shares sequence homology with the protein-tyrosine phosphatase (PTPase) family of proteins and negatively regulates the PI3K/Akt pathway. PTEN de-phosphorylates target proteins, and recombinant PTEN has been shown to have phosphoinositide 3-phosphatase and inositol phosphate 3-phosphatase activity. Studies of primary tumor cells show a loss of PTEN expression after metastasis to the brain, via astrocyte-derived microRNAs. A cluster of phosphorylation sites (S380, T382, T383, and S385) in the C-terminal tail of PTEN drive a conformational change that reduces PTEN activity by inhibiting membrane interactions.

### Product Info

<b>Amount :</b>	20 µl / 200 µl
<b>Content :</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Storage condition :</b>	Store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

1 µg/mL - 0.001 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml)

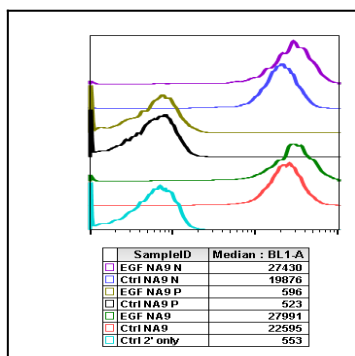


Fig-1: Flow cytometric analysis of A431 cells, untreated and unstained as negative control (blue) or untreated and stained (green) or treated with lambda phosphatase and stained (red) using Phospho-PTEN (S380) antibody, PTENS380-NA9 at 0.1 µg/mL.

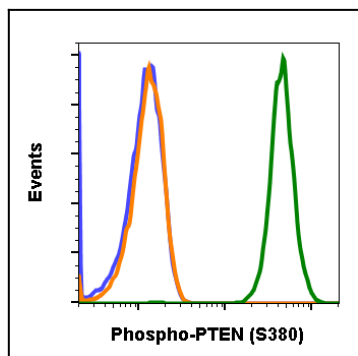


Fig 2 : Peptide blocking flow cytometric analysis of A431 cells secondary antibody only negative control (light blue) or untreated (red) or treated with EGF (green) or untreated and blocked with phospho-peptide (black) or EGF and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or EGF and blocked with non-phospho peptide (purple) using Phospho-PTEN (S380) antibody PTENS380-NA9 0.05  $\mu\text{g}/\text{mL}$ .

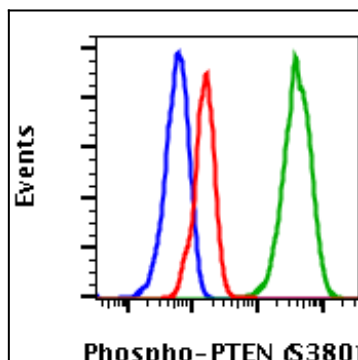


Fig-3: PTENS380-NA9 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1  $\mu\text{g}/\text{mL}$  of isotype control (orange) or of Phospho-PTEN (S380) antibody PTENS380-NA9 (green).