

12-4083: Phospho-PTEN (Ser380/Thr382/383) (Clone: E4) rabbit mAb

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| Clonality : | Monoclonal |
| Clone Name : | PTENS380T382383-E4 |
| Application : | FACS,WB |
| Reactivity : | Human |
| Conjugate : | Unconjugated |
| Format : | Purified |
| Alternative Name : | Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase, Mutated in multiple advanced cancers 1, MMAC1, Phosphatase and tensin homolog, TEP1 |
| Isotype : | Rabbit IgG1k |
| Immunogen Information : | A synthetic phospho-peptide corresponding to residues surrounding Ser380 and Thr382/383 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

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| Amount : | 200 μ l |
| Content : | 1X PBS, 0.02% NaN ₃ , 50% Glycerol, 0.1% BSA |
| Storage condition : | Store at -20°C. Avoid repeated freeze and thaw cycles. |

Application Note

1 μ g/mL - 0.001 μ g/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, more than 200 western blots)

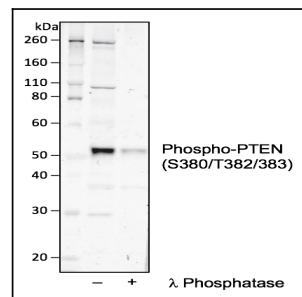


Fig-1: Western blot analysis of HEK293 cell extract untreated or treated with lambda phosphatase using Phospho-PTEN (Ser380/Thr382/383) antibody PTENS380T382383-E4. Concentration 0.01 μ g/mL.

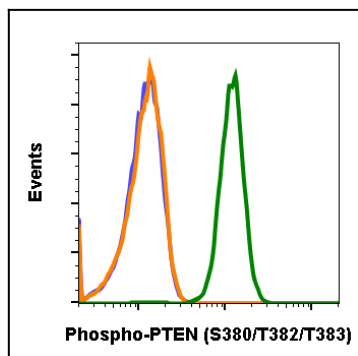


Fig 2 : PTENS380T382383-E4 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1 $\mu\text{g/mL}$ of isotype control (orange) or of Phospho-PTEN (Ser380/Thr382/383) antibody PTENS380T382383-E4 (green).

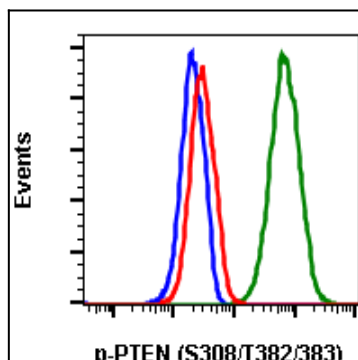


Fig-3: Flow cytometric analysis of A431 cells, untreated and unstained as negative control (blue) or untreated and stained (green) or treated with lambda phosphatase and stained (red) using Phospho-PTEN (S380) antibody, PTENS380-E4 at 0.1 $\mu\text{g/mL}$.