

Phospho-PTEN (Ser380/Thr382/383) (E4) rabbit mAb SureLight488 conjugate

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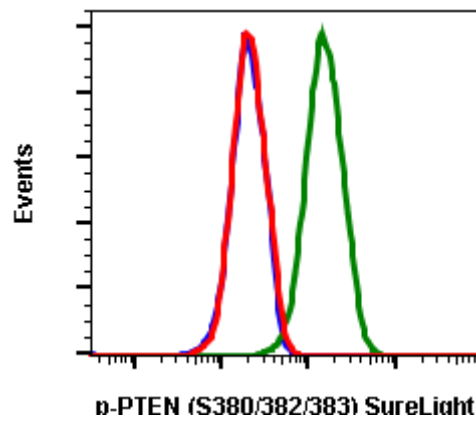
Catalog: #2135

Store at: 2-8°C

For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications | Detection | Clonality | Isotype |
|----------------|-----------|------------|-------------|
| Flow Cytometry | N/A | Monoclonal | Rabbit IgGk |

| | |
|--------------------|--|
| Format: | SureLight 488 |
| Cross Reactivity: | Predicted to work with mouse, rat and other homologues. |
| Formulation: | 1X PBS, 0.09% NaN3, 0.2% BSA |
| Preparation: | Protein A+G |
| Reactivity: | Human,Mouse |
| Recommended Usage: | For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells or 5 µL per 100 µL of staining volume. It is recommended that the reagent be titrated for optimal performance for each application. |
| Immunogen: | 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. |
| References: | Li J, Yen C, Liaw D, et al. (1997) Science. 275:1943-1947. Maehama T, and Dixon JE. (1998) Journal of Biological Chemistry. 273:13375-13378. Zhang L, Zhang S, You J, et al. (2015) Nature. 527:100-104. Chen Z, Dempsey DR, Thomas SN, Hayward D, Bolduc DM, and Cole PA. (2016) Journal of Biological Chemistry. 291:14160-14169. |



Flow cytometric analysis of A431 cells, unstained and untreated as negative control (blue) or stained and untreated (green) or stained and treated with lambda phosphatase (red) using Phospho-PTEN (Ser380/Thr382/383) antibody PTENS380T382383-E4 SureLight488 conjugate Cat. #2135.