

## 12-4077: Phospho-Shp2 (Tyr580) (Clone: 4A2) rabbit mAb PE conjugate

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	Shp2Y580-4A2
<b>Application :</b>	FACS
<b>Reactivity :</b>	Human, Mouse
<b>Conjugate :</b>	PE
<b>Format :</b>	Conjugated
<b>Alternative Name :</b>	Tyrosine-protein phosphatase non-receptor type 11, Protein-tyrosine phosphatase 1D, PTP-1D, Protein-tyrosine phosphatase 2C, SH-PTP3, PTPN11, PTP2C, SHPTP2
<b>Isotype :</b>	Rabbit IgG1k
<b>Immunogen Information :</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr580 of human phospho Shp2

### Description

Src homology region 2 (SH2)-containing protein tyrosine phosphatase 2 (Shp2, phospho Shp2), encoded by PTPN11 gene, is a non-receptor phosphotyrosine phosphatase which is ubiquitously expressed in mammalian cells and contain one protein tyrosine phosphatase (PTP) catalytic domain and two SH2 domains. The phosphatase active site is located in the C-terminal of Shp2. Shp2 is phosphorylated by several stimulants and cytokines at Tyr580 inducing Shp2 activation. Activated Shp2 recruits Grb2 and Tyr580 phosphorylation of phospho Shp2 functions as the main binding site of Grb2, thereby activating downstream Ras in response to growth factors. In turn Grb2 controls FGFR2 phosphorylation by inhibiting receptor kinase and Shp2 phosphatase activity. Shp2 also promotes both ERK1/2 and PI3K/AKT signaling. High levels of Shp2 has been found in several cancer types including breast cancer and melanoma.

### Product Info

<b>Amount :</b>	10 Tests / 100 Tests
<b>Content :</b>	1X PBS, 0.09% NaN <sub>3</sub> , 0.2% BSA
<b>Storage condition :</b>	Store at 2-8°C. Avoid repeated freeze and thaw cycles.

### Application Note

For flow cytometric staining, the suggested use of this reagent is 5  $\mu$ L per million cells or 5  $\mu$ L per 100  $\mu$ L of staining volume. It is recommended that the reagent be titrated for optimal performance for each application.

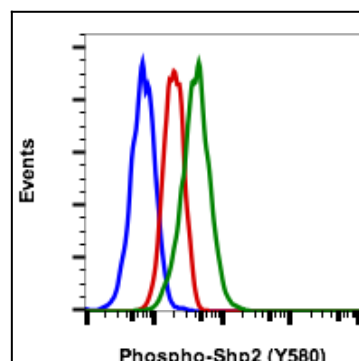


Fig-1: Flow cytometric analysis of U937 cells unstained untreated cells as negative control (blue) or stained and untreated (red) or treated cells with IFN $\alpha$  IL4 and pervanadate (green) using phospho-Shp2 (Tyr580) antibody Shp2Y580-4A2 PE conjugate.