

12-4076: Phospho-Shp2 (Tyr580) (Clone: 4A2) rabbit mAb

Clonality :	Monoclonal
Clone Name :	Shp2Y580-4A2
Application :	FACS
Reactivity :	Human, Mouse
Conjugate :	Unconjugated
Format :	Purified
Alternative Name :	Tyrosine-protein phosphatase non-receptor type 11, Protein-tyrosine phosphatase 1D, PTP-1D, Protein-tyrosine phosphatase 2C, SH-PTP3, PTPN11, PTP2C, SHPTP2
Isotype :	Rabbit IgG1k
Immunogen Information :	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

Amount :	20 µl / 200 µl
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 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)

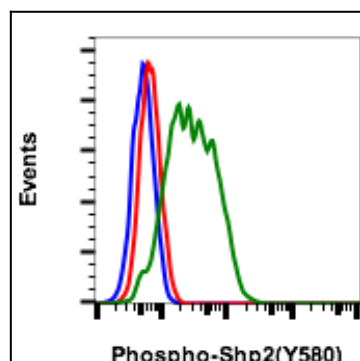


Fig-1: Flow cytometric analysis of U937 cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNα IL4 and pervanadate (green) using Phospho-Shp2 (Tyr580) antibody at 0.05 µg/mL Shp2Y580-4A2.

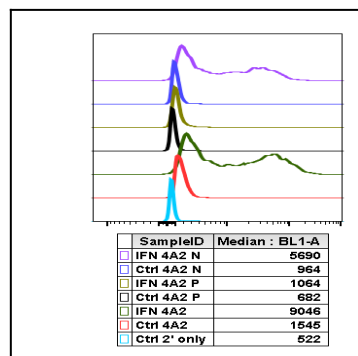


Fig 2 : Peptide blocking flow cytometric analysis of THP1 cells secondary antibody only negative control (light blue) or untreated (red) or treated with IFN α + IL-4 + pervanadate (green) or untreated and blocked with phospho-peptide (black) or treated and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or treated and blocked with non-phospho peptide (purple) using Phospho-Shp2 (Tyr580) antibody Shp2Y580-4A2 at 0.1 μ g/mL.

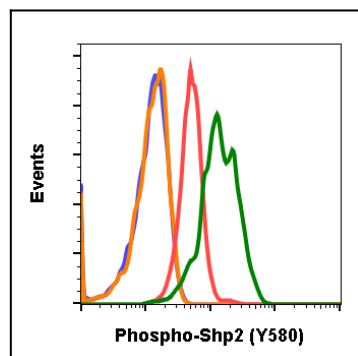


Fig-3: Flow cytometric analysis of NIH3T3 cells secondary antibody only negative control (blue) or 0.1 μ g/mL of isotype control (orange) or untreated (red) or treated with IFN α IL-4 and pervanadate (green) using Phospho-Shp2 (Tyr580) antibody Shp2Y580-4A2 at 0.1 μ g/mL.