

## SH-PTP2 (phospho Tyr580) Polyclonal Antibody

Catalog No: YP0582

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: SH-PTP2

**Fields:** >>Ras signaling pathway;>>Phospholipase D signaling pathway;>>Axon

guidance;>>C-type lectin receptor signaling pathway;>>JAK-STAT signaling pathway;>>Natural killer cell mediated cytotoxicity;>>Leukocyte transendothelial

migration;>>Neurotrophin signaling pathway;>>Adipocytokine signaling pathway;>>Insulin resistance;>>Epithelial cell signaling in Helicobacter pylori infection;>>Pathogenic Escherichia coli infection;>>Herpes simplex virus 1 infection;>>Proteoglycans in cancer;>>Chemical carcinogenesis - reactive oxygen species;>>Renal cell carcinoma;>>Chronic myeloid leukemia;>>PD-L1

expression and PD-1 checkpoint pathway in cancer

Gene Name: PTPN11

**Protein Name:** Tyrosine-protein phosphatase non-receptor type 11

P35235

Human Gene Id: 5781

**Human Swiss Prot** Q06124

No:

Mouse Gene Id: 19247

**Mouse Swiss Prot** 

No:

Rat Gene ld: 25622

Rat Swiss Prot No: P41499

Immunogen: The antiserum was produced against synthesized peptide derived from human

SHP-2 around the phosphorylation site of Tyr580. AA range:546-595

**Specificity:** Phospho-SH-PTP2 (Y580) Polyclonal Antibody detects endogenous levels of

SH-PTP2 protein only when phosphorylated at Y580.



**Formulation:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 70kD

**Cell Pathway:** Insulin Receptor; B Cell Receptor; MAPK; Protein\_Acetylation

**Background:** The protein encoded by this gene is a member of the protein tyrosine

phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains two tandem Src homology-2 domains, which function as phospho-tyrosine binding domains and mediate the interaction of this PTP with its substrates. This PTP is widely expressed in most tissues and plays a regulatory role in various cell signaling events that are important for a diversity of cell functions, such as mitogenic activation, metabolic control, transcription regulation, and cell migration.

Mutations in this gene are a cause of Noonan syndrome as well as acute myeloid

leukemia. [provided by RefSeg, Aug 2016],

**Function:** catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine +

phosphate.,disease:Defects in PTPN11 are a cause of juvenile myelomonocytic leukemia (JMML) [MIM:607785]. JMML is a pediatric myelodysplastic syndrome that constitutes approximately 30% of childhood cases of myelodysplastic syndrome (MDS) and 2% of leukemia. It is characterized by leukocytosis with tissue infiltration and in vitro hypersensitivity of myeloid progenitors to granulocytemacrophage colony stimulating factor.,disease:Defects in PTPN11 are a cause of Noonan-like syndrome [MIM:163955]; also known as Noonan-like/multiple giant cell lesion syndrome. It is an autosomal dominant disorder characterized by

Noonan features associates with giant cell lesions of bone and soft

tissue., disease: Defects in PTPN11 are the cause of LEOPARD syndrome

[MIM:151100]. It is an autosomal dominant disorder allelic with Noonan

Subcellular Location:

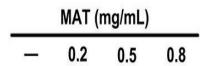
Cytoplasm . Nucleus .

**Expression:** Widely expressed, with highest levels in heart, brain, and skeletal muscle.

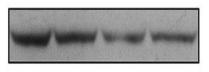
2/4



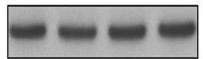
## **Products Images**



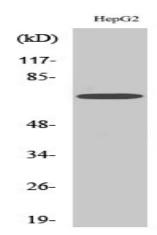
Ma, Lingdi, et al. "Matrine inhibits BCR/ABL mediated ERK/MAPK pathway in human leukemia cells." Oncotarget8.65 (2017): 108880.



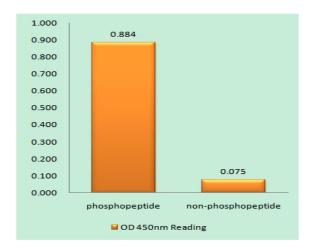
p-SHP2



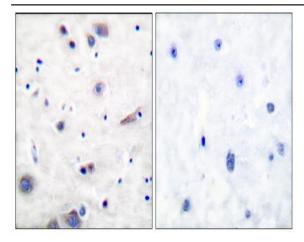
SPH2



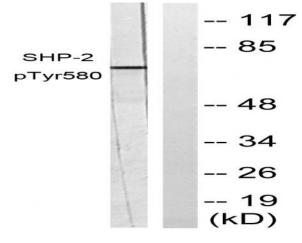
Western Blot analysis of various cells using Phospho-SH-PTP2 (Y580) Polyclonal Antibody



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SHP-2 (Phospho-Tyr580) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using SHP-2 (Phospho-Tyr580) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from A431 cells, using SHP-2 (Phospho-Tyr580) Antibody. The lane on the right is blocked with the phospho peptide.