



SH-PTP2 (phospho Tyr542) Polyclonal Antibody

Catalog No	YP-Ab-14427
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	PTPN11
Protein Name	Tyrosine-protein phosphatase non-receptor type 11
Immunogen	The antiserum was produced against synthesized peptide derived from human SHP-2 around the phosphorylation site of Tyr542. AA range:508-557
Specificity	Phospho-SH-PTP2 (Y542) Polyclonal Antibody detects endogenous levels of SH-PTP2 protein only when phosphorylated at Y542.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/40000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PTPN11; PTP2C; SHPTP2; Tyrosine-protein phosphatase non-receptor type 11; Protein-tyrosine phosphatase 1D; PTP-1D; Protein-tyrosine phosphatase 2C; PTP-2C; SH-PTP2; SHP-2; Shp2; SH-PTP3
Observed Band	70kD
Cell Pathway	Cytoplasm . Nucleus .
Tissue Specificity	Widely expressed, with highest levels in heart, brain, and skeletal muscle.
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 granulocyte-macrophage 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

**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 RefSeq, Aug 2016],

matters needing attention

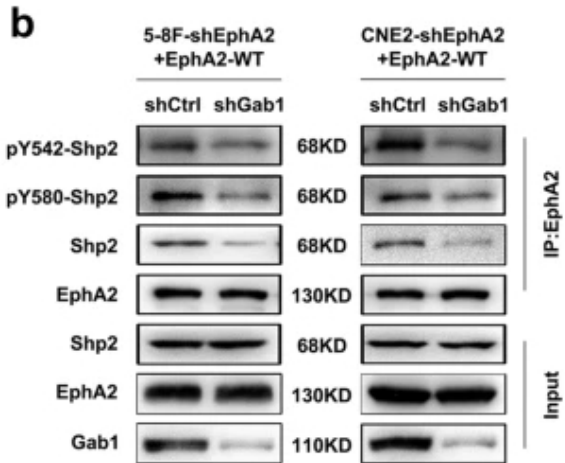
Avoid repeated freezing and thawing!

Usage suggestions

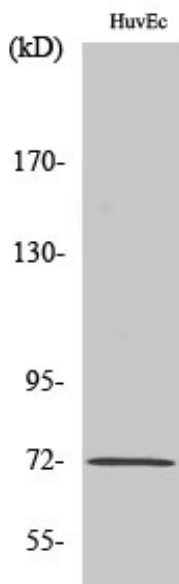
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



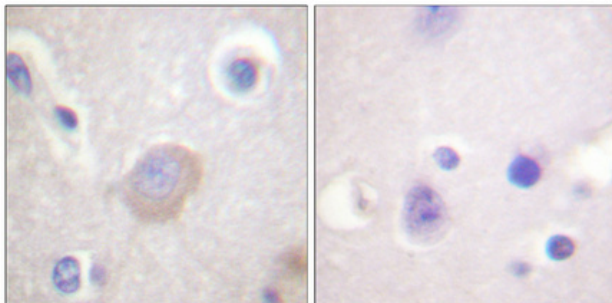
Products Images



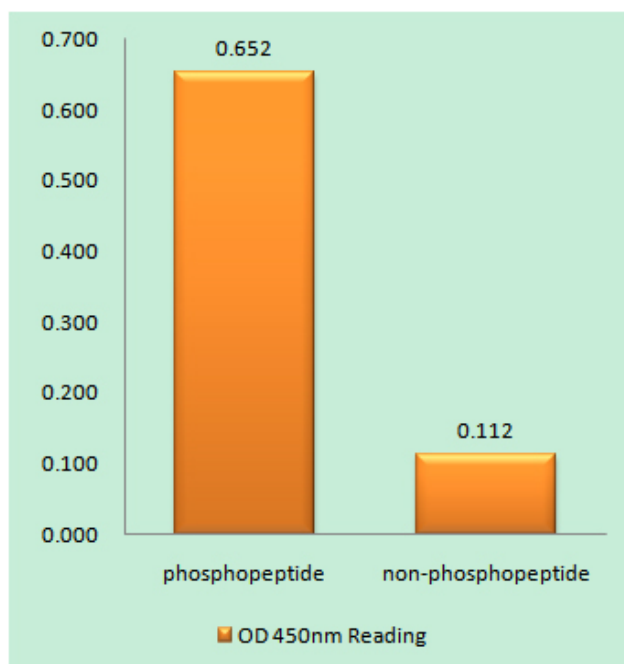
Xiang, YP., Xiao, T., Li, QG. et al. Y772 phosphorylation of EphA2 is responsible for EphA2-dependent NPC nasopharyngeal carcinoma growth by Shp2/Erk-1/2 signaling pathway. Cell Death Dis 11, 709 (2020).



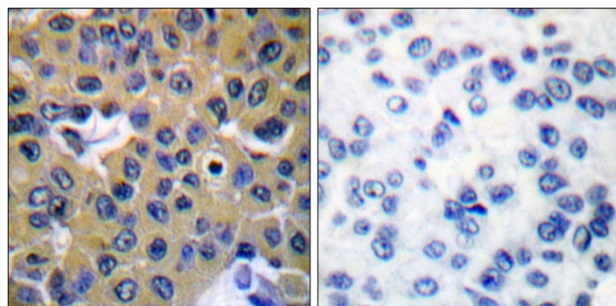
Western Blot analysis of various cells using Phospho-SH-PTP2 (Y542) Polyclonal Antibody diluted at 1:1000



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SHP-2 (Phospho-Tyr542) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using SHP-2 (Phospho-Tyr542) Antibody. The picture on the right is blocked with the phospho peptide.