

Product datasheet for **AP20278PU-M**

SHP2 (PTPN11) Rabbit Polyclonal Antibody

Product data:

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| Product Type: | Primary Antibodies |
| Applications: | IHC, WB |
| Recommended Dilution: | Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections: 1/500-1/1000. |
| Reactivity: | Human, Mouse, Rat |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Specificity: | This antibody detects endogenous levels of SH-PTP2 protein. |
| Formulation: | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction |
| Concentration: | 1.0 mg/ml |
| Purification: | Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE) |
| Conjugation: | Unconjugated |
| Storage: | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| Predicted Protein Size: | ~ 70 kDa |
| Gene Name: | protein tyrosine phosphatase, non-receptor type 11 |
| Database Link: | Entrez Gene 19247 Mouse Entrez Gene 25622 Rat Entrez Gene 5781 Human Q06124 |



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Background:

SHP (also designated short heterodimer partner and small heterodimer partner) is an orphan nuclear receptor containing the dimerization and ligandbinding domains found in other nuclear receptors but lacking the conserved DNA binding domain. SHP is specifically expressed in liver and other tissues including fetal liver and adrenal gland, adult spleen and small intestine. In addition, SHP is highly expressed in the murine macrophage cell line RAW 264.7 but suppressed by oxLDL and 13-HODE, which is a ligand for PPAR γ . SHP interacts with nuclear receptors including thyroid receptor, retinoic acid receptors (RAR and RXR) and estrogen receptors (ER α and ER β). SHP functions as a negative regulator of these receptors by at least three mechanisms: inhibition of DNA binding via dimerization, direct antagonism of coactivator function via competition and possibly transrepression via recruitment of putative corepressors. In oxLDL-treated, resting macrophage cells, SHP acts as a transcription coactivator of NF- κ B, suggesting that SHP is a modulatory component in the regulation of the transcriptional activities of NF- κ B. Lastly, negative feedback regulation of a hepatic bile acid transporter NTCP is controlled by bile acid-activated FXR via induction of SHP to protect the hepatocyte from bile acid-mediated damage in cholestatic conditions.

Synonyms:

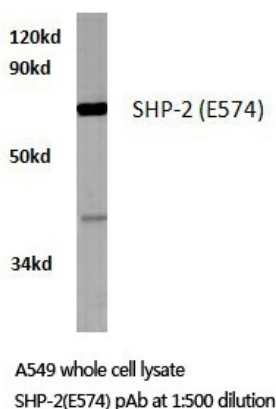
SHPTP2, PTP-1D, PTP-2C, SH-PTP2, SHP-2, Shp2, SH-PTP3

Protein Families:

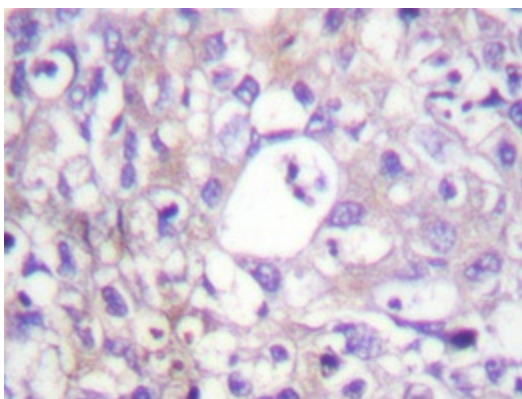
Druggable Genome, Phosphatase

Protein Pathways:

Adipocytokine signaling pathway, Chronic myeloid leukemia, Epithelial cell signaling in Helicobacter pylori infection, Jak-STAT signaling pathway, Leukocyte transendothelial migration, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Renal cell carcinoma

Product images:


Western blot (WB) analysis of SH-PTP2 antibody (Cat.-No.: [AP20278PU-N]) in extracts from A549 cells.



Immunohistochemistry analyzes of SH-PTP2 antibody ([AP20278PU-N]) in paraffin-embedded human breast carcinoma tissue.