



**Polyclonal Anti-Protein tyrosine phosphatase, non-receptor type 11, *SHP-2 (PTPN11)* (Sephadex Bead Conjugate)**

**Catalogue No.** PA1114-S

**Lot No.** 08J01

**Ig type:** rabbit IgG

**Size:** 100µg/vial

**Specificity**

Human, rat, mouse. No cross reactivity with other proteins.

**Recommended application**

(Immunoprecipitation(IP))

**Immunogen**

A synthetic peptide mapping at the C-terminal of human SHP-2, identical to the related rat sequence.

**Purification**

Immunogen affinity purified.

**Formulation**

50% slurry in PBS pH 7.2 with 0.01mg NaN<sub>3</sub> preservative.

**Storage**

Store at 4°C for frequent use.

**Description:**

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sephadex beads. It is useful for immunoprecipitation assays

**BACKGROUND**

The tyrosine phosphatase Shp2 is recruited into tyrosine-kinase signalling pathways through binding of its two amino-terminal SH2 domains to specific phosphotyrosine motifs, concurrent with its re-localization and stimulation of phosphatase activity. Shp2 can potentiate signalling through the MAP-kinase pathway and is required during early mouse development for gastrulation. Shp2 is specifically required in mesenchyme cells of the progress zone (PZ), directly beneath the distal ectoderm of the limb bud. Rather than integrating proliferative signals, Shp2 probably exerts its effects on limb development by influencing cell shape, movement or adhesion. Furthermore, the branchial arches, which also use Fgfs during bud outgrowth, similarly require Shp2. Thus, Shp2 regulates phosphotyrosine-signalling events during the complex ectodermal-mesenchymal interactions that regulate mammalian budding morphogenesis.

**REFERENCE**

1. Saxton, T. M.; Ciruna, B. G.; Holmyard, D.; Kulkarni, S.; Harpal, K.; Rossant, J.; Pawson, T. : The SH2 tyrosine phosphatase Shp2 is required for mammalian limb development. *Nature Genet.* 24: 420-423, 2000.