

## **Product Informatiion Sheet**

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

Catalogue No. PA1114-M	Immunogen A synthetic peptide mapping at the C-terminal of human SHP 2 dentical to the related rat
Lot No. 08J01	sequence.
<b>Ig type:</b> rabbit IgG1	Purification Immunogen affinity purified
Size: 100µg/Vial	Contents
<b>Specificity</b> Human, rat, mouse.	Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN $_{3}$ .
No cross reactivity with other	Storage
proteins.	Store at 4°C for frequent use.
Recommended application	Description:
Immunoprecipitation(IP)	This Antagene antibody is immobilized by the covalent reaction of
	hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic
	beads. It is useful for immunoprecipitation

## 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.