

## Product datasheet for RC220029L3

### SHP2 (PTPN11) (NM\_002834) Human Tagged Lenti ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | SHP2 (PTPN11) (NM_002834) Human Tagged Lenti ORF Clone               |
| Tag:                      | Myc-DDK  |
| Symbol:                   | SHP2   |
| Synonyms:                 | BPTP3; CFC; JMML; METCDS; NS1; PTP-1D; PTP2C; SH-PTP2; SH-PTP3; SHP2 |
| Mammalian Cell Selection: | Puromycin  |
| Vector:                   | pLenti-C-Myc-DDK-P2A-Puro (PS100092)                                 |
| E. coli Selection:        | Chloramphenicol (34 ug/mL)   |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(RC220029).       |
| Restriction Sites:        | SgfI-MluI  |
| Cloning Scheme:           |  |

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF.

|           |           |
|-----------|-----------|
| ACCN:     | NM_002834 |
| ORF Size: | 1779 bp   |

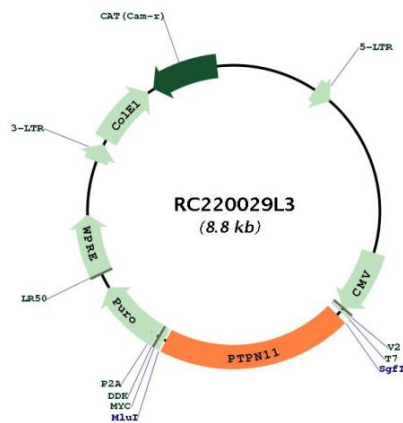


|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol> |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.  |
| <b>RefSeq:</b>                | <a href="#">NM_002834.3</a>   |
| <b>RefSeq Size:</b>           | 6300 bp   |
| <b>RefSeq ORF:</b>            | 1782 bp   |
| <b>Locus ID:</b>              | 5781  |
| <b>UniProt ID:</b>            | <a href="#">Q06124</a>  |
| <b>Cytogenetics:</b>          | 12q24.13  |
| <b>Protein Families:</b>      | Druggable Genome, Phosphatase   |
| <b>Protein Pathways:</b>      | 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  |
| <b>MW:</b>                    | 67.8 kDa  |

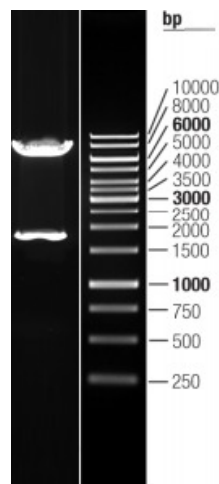
## Gene Summary:

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]

## Product images:



Circular map for RC220029L3



Double digestion of RC220029L3 using SgfI and MluI