

## Product datasheet for **SC318959**

### **SHP1 (PTPN6) (NM\_080549) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SHP1 (PTPN6) (NM_080549) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHP1
Synonyms:	HCP; HCPH; HPTP1C; PTP-1C; SH-PTP1; SHP-1; SHP-1L; SHP1
Vector:	<u>pCMV6 series</u>
Restriction Sites:	Please inquire
ACCN:	NM_080549
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	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).
Reconstitution Method:	<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>
RefSeq:	<u>NM_080549.3, NP_536859.1</u>
RefSeq Size:	2464 bp
RefSeq ORF:	1875 bp
Locus ID:	5777


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<b>UniProt ID:</b>	<u>P29350</u>
<b>Cytogenetics:</b>	12p13.31
<b>Domains:</b>	Y_phosphatase, SH2, PTPc_motif
<b>Protein Families:</b>	Druggable Genome, Phosphatase, Stem cell - Pluripotency
<b>Protein Pathways:</b>	Adherens junction, B cell receptor signaling pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway
<b>Gene Summary:</b>	<p>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. N-terminal part of this PTP contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains, and mediate the interaction of this PTP with its substrates. This PTP is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. This PTP has been shown to interact with, and dephosphorylate a wide spectrum of phospho-proteins involved in hematopoietic cell signaling. Multiple alternatively spliced variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (3) uses an alternate 5' terminal exon, and an alternate acceptor splice site at the penultimate exon, compared to transcript variant 1, resulting in a longer isoform (3, also known as 70 kDa SHP-1L protein) with distinct N_ and C_ termini, compared to isoform 1.</p>