

## Product datasheet for **SC128003**

### **SHP1 (PTPN6) (NM\_080548) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SHP1 (PTPN6) (NM_080548) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHP1
Synonyms:	HCP; HCPH; HPTP1C; PTP-1C; SH-PTP1; SHP-1; SHP-1L; SHP1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_080548, the custom clone sequence may differ by one or more nucleotides

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ATGCTGTCCCCTGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAG
GTGTCCACGGTAGCTTCCTGGCTCGGCCAGTCGCAAGAACCAGGGTGACTTCTCGCTCTCCGTACGGGT
GGGGGATCAGGTGACCCATATTCGGATCCAGAACTCAGGGGATTCTATGACCTGTATGGAGGGGAGAAG
TTTGCGACTCTGACAGAGCTGGTGGAGTACTACTCAGCAGCAGGGTGTCTGACAGACCAGCAGGGCA
CCATCATCCACCTCAAGTACCCGCTGAAGTCTCCGATCCCACTAGTGAGAGGTGGTACCATGGCCACAT
GTCTGGCGGGCAGGCAGAGACGCTGCTGCAGGCCAAGGGCGAGCCCTGGACGTTTCTGTGCGTGAGAGC
CTCAGCCAGCCTGGAGACTTCGTGCTTTCTGTGCTCAGTGACCAGCCCAAGGCTGGCCAGGCTCCCCGC
TCAGGGTCACCCACATCAAGGTGATGTGCGAGGGTGGACGCTACACAGTGGGTGGTTTGGAGACCTTCGA
CAGCCTCACGGACCTGGTGGAGCATTTCAAGAAGACGGGGATTGAGGAGGCCTCAGGCGCCTTTGTCTAC
CTGCGGCAGCCGTAATGCCACGAGGGTGAATGCGGCTGACATTGAGAACCAGTGTGGAACTGAACA
AGAAGCAGGAGTCCGAGGATACAGCCAAGGCTGGCTTCTGGGAGGAGTTTGGAGTTTGCAGAAGCAGGA
GGTGAAGAACTTGCACACGCGTCTGGAAGGGCAGCGGCCAGAGAACAAGGCAAGAACCCGCTACAAGAAC
ATTCTCCCCTTTGACCACAGCCGAGTGATCCTGCAGGGACGGGACAGTAACATCCCCGGTCCGACTACA
TCAATGCCAACTACATCAAGAACCAGCTGCTAGGCCCTGATGAGAACCCTAAGACCTACATCGCCAGCCA
GGGCTGTCTGGAGGCCACGGTCAATGACTTCTGGCAGATGGCGTGGCAGGAGAACAGCCGTGTCATCGTC
ATGACCACCCGAGAGGTGGAGAAAGGCCGAACAAATGCGTCCCACTACTGGCCCGAGGTGGGCATGCAGC
GTGCTTATGGGCCCTACTCTGTGACCAACTGCGGGGAGCATGACACAACCGAATACAACTCCGTACCTT
ACAGGTCTCCCCGCTGGACAATGGAGACCTGATTCGGGAGATCTGGCATTACCAGTACCTGAGCTGGCCC
GACCATGGGGTCCCCAGTGAGCCTGGGGTGTCTCAGTTCCTGGACCAGATCAACCAGCGGCAGGAAA
GTCTGCCTCAGCAGGGCCATCATCGTGCAGTGCAGCGCCGGCATCGGCCGCACAGGCACCATCATTGT
CATCGACATGCTCATGGAGAATCTCCACCAAGGGCCTGGACTGTGACATTGACATCCAGAAGACCATC
CAGATGGTGCGGGCGCAGCGCTCGGCATGGTGCAGACGGAGGCGCAGTACAAGTTCATCTACGTGGCCA
TCGCCCAGTTCATTGAAACCACTAAGAAGAAGCTGGAGGTCTGCAGTGCAGAAGGGCCAGGAGTCGGA
GTACGGGAACATCACCTATCCCCAGCCATGAAGAATGCCATGCCAAGGCCTCCCGCACCTCGTCCAAA
CACAAGGAGGATGTGTATGAGAACCCTGCACACTAAGAACAAGAGGGAGGAGAAAGTGAAGAAGCAGCGGT
CAGCAGACAAGGAGAAGAGCAAGGGTCCCTCAAGAGGAAGTGA
    
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_080548 unedited

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AGGCGACCCGNAATTCGCACGAGGCAGGATCGAGGAGGAGTGGCTGATTACTGAGCGGG
TCTTCTCACCTGGCTTGGGCCACTGTGCACAGCTGTGCCGCTGGCTCANCCCCGCCCC
TGCGGCCCTCCGCGTGGCTTCCCCCTCCCTACAGAAAGATGCTGTCCCCTGGTGGTTT
CACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAGGTGTCCACGGT
AGCTTCTGGCTCGGCCAGTCGCAAGAACCAGGGTGACTTCTCGCTCTCCGTACGGGTG
GGGATCAGGTGACCCATATTCGGATCCAGAACTCANGGGATTTCTATGACCAGTATGGA
GGGGAGAAGTTTGCAGCTCTGACAGAGCTGGTGGAGTACTACTCAGCAGCAGGGTGTG
CTGCAGGACCGCAACGGCACCATCATCCACCTCAAGTACCCGCTGAACTGCTCCGATCCC
ACTAGTGAGAGGACGTACCATGGCCAAATGTCTGGCGGGCAGGCACAGACGCTGTGCAG
GCCAAGGGCGAGCCCTGGACGTTTCTTGTGCGTGAGAGCCTCAGCCAGCCTGGAGACTTC
GATCTTTCTGTGCTCAGTGACCAGCCAAAGGCTGGGCCAGGCTCCCCCGCTCAGGGGT
CCCCCACCAAGGTGATGTGCGAGGGTGGGACGCTACACAGGGGTGGTTTGAAGACC
TCCAACAGCCTCAGGGACTGGTGGGAAGCATTTCAGATANACAGGGGATTGAGAAGGCC
TCCAAGCGGCCTTTGGTTAACTTGGGGCAGCCGTTACTAATGCCACGGAAGGTAGAATT
GCCGCTT
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_080548 unedited CCATGGAGCCTTGGNTGATGGCAACTNCCATGNNCCAGGAGAGCACTGGNNGNAGGGGTC ACAGGGCATGCCACCCGGTTCGTTCAGGAAAAGCTATGACCGCGGCCCAATCTAGAG TCGAGTTTAAACAGGGA TCCCAGGGCTTTATTTACAAAAGGAAAAGGGTTGGCCCTGCCTGGGGCCTGGCTGGGCTA TATACAGGGTCAGGAAAAGGGGGGGGGATGCACCCATTTAAATTACAAAAAATGGGGC ACTCCTAGGTTTCAGGTTGGGAGTCTGTCCATCGCAAATGCTTCCACAGGGTCAGGGCTG AGGCATGGCCACCTGAGGACAGCACCGCTCACTTCTTTTGAGGGAACCTTGCTTTCT CCTTGTCTGCTGACCGCTGCTTTTTCACTTTCTCCTCCCTCTTGTCTTAGGGGGCAGGT TCTCATAACATCCTCCTTGTGTTGGACAAGGTGCGGGAGGCCTTGGCATGGGCATTCT TCATGGCTGGGGATAGGTGATGTTCCCGTACTCCGACTCCTGGCCCTTCTGCGACTGCA GGACCTCCAGCTTTTTTTAGTGGTTTCAATGAACTGGGCGATGGCCACGTAATGAACT TGTACTGCGCCTCCGTCTGCACCATGCCCGAGCGCTGCGCCGACCATCTGGATGGTCT TCTGGATGCAATGTCACAGTCCAGGCCCTTGGTGGAGATGTTCTCCATGACCATGTCAA TGACAATGATGGTGCCTGGGCGCCAATGCCGGCCTGCAGTGCACAATGATGGCCCTTG CCTGAGCAAACCTTCTGCGGCTGGTTGAATCTGTCCAGGAAGCTTGAGGCAC
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_080548
<b>Insert Size:</b>	2400 bp
<b>OTI Disclaimer:</b>	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).
<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>RefSeq:</b>	<u><a href="#">NM_080548.2</a></u> , <u><a href="#">NP_536858.1</a></u>
<b>RefSeq Size:</b>	2234 bp
<b>RefSeq ORF:</b>	1794 bp
<b>Locus ID:</b>	5777
<b>UniProt ID:</b>	<u><a href="#">P29350</a></u>
<b>Cytogenetics:</b>	12p13.31
<b>Domains:</b>	Y_phosphatase, SH2
<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 (2) uses an alternate 5' terminal exon compared to transcript variant 1, resulting in an isoform (2) with a distinct and longer (by 2 aa) N-terminus, compared to isoform 1.</p>