

Product datasheet for **SC109665**

SHP1 (PTPN6) (NM_002831) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHP1 (PTPN6) (NM_002831) 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>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC109665 sequence for NM_002831 edited (data generated by NextGen Sequencing)

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ATGGTGAGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGC
CGAGGTGTCCACGGTAGCTTCTGGCTCGGCCAGTCCGAAGAACCAGGGTGACTTCTCG
CTCTCCGTGAGGGTGGGGATCAGGTGACCCATATTCGGATCCAGAACTCAGGGGATTC
TATGACCTGTATGGAGGGGAGAAGTTTGGCACTCTGACAGAGCTGGTGGAGTACTACACT
CAGCAGCAGGGTGTCTGCAGGACCGCAGCCACCATCCACCTCAAGTACCCGGCTG
AACTGCTCCGATCCCACTAGTGAGAGGTGGTACCATGGCCACATGTCTGGCGGGCAGGCA
GAGACGCTGCTGCAGGCCAAGGGCGAGCCCTGGACGTTTCTTGTGCGTGAGAGCCTCAGC
CAGCCTGGAGACTTCGTGCTTTCTGTGCTCAGTGACCAGCCCAAGGCTGGCCAGGCTCC
CCGCTCAGGGTACCCACATCAAGGTCAATGTGCGAGGGTGGACGTACACAGTGGGTGGT
TTGGAGACCTTCGACAGCCTCACGGACCTGGTGGAGCATTCAAGAAGACGGGGATTGAG
GAGGCCTCAGGCGCTTTGTCTACCTGCGGCAGCCGACTATGCCACGAGGGTGAATGCG
GCTGACATTGAGAACCGAGTGTGGAACTGAACAAGAAGCAGGAGTCCGAGGATACAGCC
AAGGCTGGCTTCTGGGAGGAGTTTGGAGTTTGCAGAAGCAGGAGTGAAGAATTGCAC
CAGCGTCTGGAAGGGCAGCGGCCAGAGAACAAGGGCAAGAACCGCTACAAGAACATTCTC
CCCTTTGACCACAGCCGAGTGATCCTGCAGGGACGGGACAGTAACATCCCCGGTCCGAC
TACATCAATGCCAACTACATCAAGAACCAGCTGCTAGGCCCTGATGAGAACGCTAAGACC
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TGCGTCCCATACTGGCCCGAGGTGGGCATGCAGCGTGTATGGGCCCTACTCTGTGACC
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GACAATGGAGACCTGATTTCGGGAGATCTGGCATTACAGTACCTGAGCTGGCCCGACCAT
GGGGTCCCAAGTGCCTGGGGGTGTCTCAGTTCCTGGACCAGATCAACCAGCGGCAG
GAAAGTCTGCCTCAGCAGGGCCATCATCGTGCCTGCAGCGCCGGCATCGGCCGACA
GGCACCATCATTGTCATCGACATGCTCATGGAGAACATCTCCACCAAGGGCTGGACTGT
GACATTGACATCCAGAAGACCATCCAGATGGTGCAGGGCGCAGCGCTCGGGCATGGTGCAG
ACGGAGGGCAGTACAAGTTCATCTACGTGGCCATCGCCAGTTCATTGAAACCACTAAG
AAGAAGCTGGAGTCTGCAGTGCAGAAAGGGCCAGGAGTCCGAGTACGGGAACATCACC
TATCCCCAGCCATGAAGAATGCCCATGCCAAGGCCTCCCGCACCTCGTCAAACACAAG
GAGGATGTGTATGAGAACCTGCACACTAAGAACAAGAGGGAGGAGAAAGTGAAGAAGCAG
CGTCCAGCAGACAAGGAGAAGAGCAAGGGTTCCTCAAGAGGAAGTGA
    
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Clone variation with respect to NM_002831.5

5' Read Nucleotide Sequence: >OriGene 5' read for NM_002831 unedited

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NGGTTCAAATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCCCGGCAC
TGGGAGCTGCATCTGAGGCTTAGTCCCTGAGCTCTCTGCCTGCCAGACTAGCTGCACCT
CCTCATTCCCTGCGCCCCCTTCTCTCCGGAAGCCCCAGGATGGTGGAGTGGTTTACC
GAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAGGTGTCCACGGTAGCT
TCCTGGCTCGGCCAGTGCAGAAACCAGGGTGAATTCCTGCTCTCCGTGAGGGTGGGG
ATCAGGTGACCCATATTCGGATCCAGAACTCAGGGGATTTCTATGACCTGTATGGAGGG
AGAAGTTTGGCACTCTGACAGAGCTGGTGGAGTACTACACTCAGCAGCAGGGTGTCTGC
AGGACCCGACGGCACCATCATCCACCTCAAGTACCCGCTGAAGTGTCCGATCCCACTA
GTGAGAGGTGGTACCATGGCCACATGTCTGGCGGGCAGGCAGAGACGCTGCTGCAGGCCA
AGGGCGAGCCCTGGACGTTTCTTGTGCGTGAGAGCCTCAGCCAGCCTGGAGACTTCGTGC
TTTCTGTGCTCAGTGACCAGCCCAAGGCTGGCCAGGCTCCCGCTCAGGGTCAACCACA
TCAAGGTCAATGTGCCGAGGGTGGACGCTCACGTGGNTTGGGTTTTTGGAGACCTTCGACA
GCCTCACNGACCTGGTGGAGCATTTAAGAGACCGGGGAATTGGGAGGAGGCCTCANNGC
GCCTTTGTCTACCTGCGGCAGCCGTCTATGCACGAGGGGTGAATGCGGCTGCATGGAAC
CCCCGGTGTGGGACTGACAAAAACCAGAAGTCCGAGATCACNCAGCTGTTGGGGNNGGA
GGGGTTNNNNNGAACTGCAACCCGGGAGTGAACACTGCCAGNNGGGC
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002831 unedited NAAACAACCGAGACACCCNCCNNNNNNNNCTNNNNNNNNCNTTTTTATCTTTGNAACCN CGGNCCGCATNCTAGGATCGAGTTTTTTTTTTTTTTTTTTTAAACAGTGATCCCAGGGCTTT ATTTACAAGAGGAGAAGGGTTGGCCCTGCCTGGGGCCTGGCTGGGCTATATACAGGGTCA GGGAGAGGTGGGGGGGATGCAGCCATTTAAATTACAAAAGAATGGGGCACTCCTAGGTTC AGGTTGTGAGTCTGTCCATCGCGAAATGCTTCCACAGGGTCAGGGCTGAGGCATGGCCAC CTGAGGACAGCACCGCTCACTTCTCTTGAGGGAACCCCTTGCTCTTCTCCTTGTCTGTG ACCGCTGCTTCTCACTTCTCCTCCCTCTTGTTCTTAGTGTGCAGGTTCTCATACACAT CCTCCTTGTGTTTGGACGAGGTGCGGGAGGCCTTGGCATGGCATTCTTCATGGCTGGGG GATAGGTGATGTTCCCGTACTCCGACTCCTGGCCCTTCTGCGACTGCAGGACCTCCAGCT TCTTCTTAGTGGTTTCAATGAACTGGGCGATGGCCACGTAGATGAACTTGTACTGCGCT CCGTCTGCACCATGCCCGAGCGCTGCGCCCGCACCATCTGGATGGTCTTCTGGATGTCAA TGTACAGTCCAGGCCCTGGTGGAGATGTTCTCCATGAGCATGTCGATGACAATGATGG TGCCCTGTGCGGCCGATGCCGGCGCTGCATTGCACATGATGGGCCCTGCGTGAAGCAGAC TTTCTGCGCTGGTTGATCTGGTCCAAGAAGCTGAGGACCCCCCAGCTTACTGGGGAC CCCATGTGCGGCCAGCTCAGTCTGTTATGCCAAACTTCCCGAATCAGTCTCCATTGCC CACCGGAAACCTGTAAGGTACGGATTTGATTCCGGTGGGTCATGCTCCCCCAATGGG
Restriction Sites:	NotI-NotI
ACCN:	NM_002831
Insert Size:	2050 bp
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).
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"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
RefSeq:	NM_002831.3 , NP_002822.2
RefSeq Size:	2253 bp
RefSeq ORF:	1788 bp
Locus ID:	5777
UniProt ID:	P29350
Cytogenetics:	12p13.31
Domains:	Y_phosphatase, SH2, PTPc_motif

Protein Families:	Druggable Genome, Phosphatase, Stem cell - Pluripotency
Protein Pathways:	Adherens junction, B cell receptor signaling pathway, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway
Gene Summary:	<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 (1) represents the predominant transcript and encodes the shortest isoform (1, also known as SHP-1).</p>