

## Product datasheet for **RC200728**

### **SHP1 (PTPN6) (NM\_080548) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SHP1 (PTPN6) (NM_080548) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHP1
Synonyms:	HCP; HCPH; HPTP1C; PTP-1C; SH-PTP1; SHP-1; SHP-1L; SHP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC200728 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTGTCCCGTGGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAG  
 GTGTCCACGGTAGCTTCCTGGCTCGGCCAGTCGCAAGAACCAGGGTACTTCTCGCTCTCCGTCAGGGT  
 GGGGATCAGGTACCCATATTCGGATCCAGAACTCAGGGGATTCTATGACCTGTATGGAGGGGAGAAG  
 TTTGCGACTCTGACAGAGCTGGTGGAGTACTACACTCAGCAGCAGGGTGTCTGCAGGACCGCAGCGCA  
 CCATCATCCACCTCAAGTACCCGCTGAAGTGTCCGATCCCACTAGTGAGAGGTGGTACCATGGCCACAT  
 GTCTGGCGGGCAGGCAGAGACGCTGCTGCAGGCCAAGGGCGAGCCCTGGACGTTTCTGTGCGTGAGAGC  
 CTCAGCCAGCCTGGAGACTTCGTGCTTTCTGTGCTCAGTGACCAGCCCAAGGCTGGCCAGGCTCCCCGC  
 TCAGGGTCACCCACATCAAGGTCATGTGCGAGGGTGGACGCTACACAGTGGTGGTTTGGAGACCTTCGA  
 CAGCCTCAGGACCTGGTGGAGCATTTCAAGAAGACGGGGATTGAGGAGGCTCAGCGCCTTTGTCTAC  
 CTGCGGCAGCCGACTATGCCACGAGGGTGAATGCGGGTACATTGAGAACCAGTGTGGAACTGAACA  
 AGAAGCAGGAGTCCGAGGATACAGCCAAGGCTGGCTTCTGGGAGGAGTTTGAGAGTTTGCAGAAGCAGGA  
 GGTGAAGAATTGACCACAGCGTCTGGAAGGGCAGCGGCCAGAGAACAAGGGAAGAACCCTACAAGAAC  
 ATTCTCCCTTTGACCACAGCCGAGTGATCCTGCAGGGACGGGACAGTAACATCCCCGGTCCGACTACA  
 TCAATGCCAACTACATCAAGAACCAGTGTAGGCCCTGATGAGAACCCTAAGACCTACATCGCCAGCCA  
 GGGCTGTCTGGAGGCCACGGTCAATGACTTCTGGCAGATGGCGTGGCAGGAGAACAGCCGTGTATCGTC  
 ATGACCACCCGAGAGGTGGAGAAAGGCCGAACAATGCGTCCCATACTGGCCGAGTGGGCATGCAGC  
 GTGCTTATGGCCCTACTCTGTGACCAACTCGGGGAGCATGACACAACCGAATACAACCTCCGTACCTT  
 ACAGGTCTCCCCGCTGGACAATGGAGACCTGATTCGGGAGATCTGGCATTACAGTACCTGAGCTGGCCC  
 GACCATGGGGTCCCCAGTGAGCCTGGGGTGTCTCAGCTTCTGGACCAGATCAACCAGCGCAGGAAA  
 GTCTGCCTCACGCAGGGCCATCATCGTGCAGTGCAGCGCCGCATCGGCCGCACAGGCACCATCATTGT  
 CATCGACATGCTCATGGAGAATCTCCACCAAGGGCCTGGACTGTGACATTGACATCCAGAAGACCATC  
 CAGATGGTGGGGCAGCGCTCGGGCATGGTGCAGACGGAGGCGCAGTACAAGTTCATCTACGTGGCCA  
 TCGCCAGTTCATTGAAACCACTAAGAAGAAGCTGGAGTCTGCAGTGCAGAGGGCCAGGAGTCGGA  
 GTACGGGAACATCACCTATCCCCAGCCATGAAGAATGCCATGCCAAGGCTCCCGCACCTCGTCCAAA  
 CACAAGGAGGATGTGTATGAGAACCTGCACACTAAGAACAAGAGGGAGGAGAAAGTAAGAAGCAGCGGT  
 CAGCAGACAAGGAGAAGCAAGGGTCCCTCAAGAGGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC200728 protein sequence  
 Red=Cloning site Green=Tags(s)

MLSRGWFHRDLSGLDAETLLKGRGVHGSFLARPSRKNQGFSLSVRVGDQVTHIRIQNSGDFYDLYGGEK  
 FATLTELVEYYTQQQVLQDRDGTIIHLKYPLNCSDPYSERWYHGHMSSGQAETLLQAKGEPWTFVRES  
 LSQPGDFVLSVSDQPKAGPGSPLRVTHIKVMCEGGRYTVGGLETFDLSDLVEHFKKTGIEEASGAFVY  
 LRQPPYYATRVNAADIENRVLELNKKQESD TAKAGWEEFESLQKQEVKNLHQRLGQRPENKGNRYKN  
 ILPFDHSRVILQGRDSNIPGSDYINANYIKNQLLGPDENAKTYIASQGCLEATVNDWFQMAWQENSRIIV  
 MTTREVEKGRNKCVPYWPEVGMQRAYGYPYVTNCGEHD TTEYKLRTLQVSPLDNGDLIREIWHYQYLSWP  
 DHGVPSEPGGVL SFLDQINQRQESLPHAGPIIVHCSAGIGRTGTIIVIDMLMENISTKGLDCDIDIQKTI  
 QMVRAQRSGMVQTEAQYKFIYVAIAQF IETTKKLEVLQSQKQGESEYGNITYPPAMKNAHAKASRTSSK  
 HKEDVYENLHTKNKREEKVKKQRSADKEKSKGSLKRRK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6238\\_f05.zip](https://cdn.origene.com/chromatograms/mk6238_f05.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_080548

ORF Size: 1791 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:
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\\_080548.4](#)

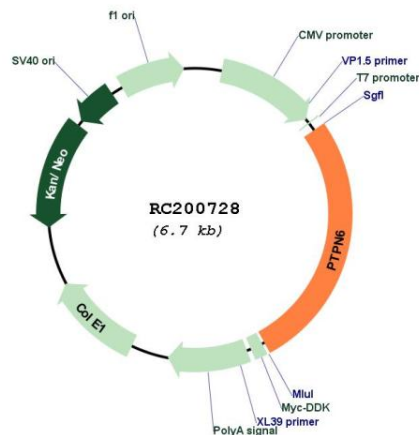
RefSeq Size: 2234 bp

RefSeq ORF: 1794 bp

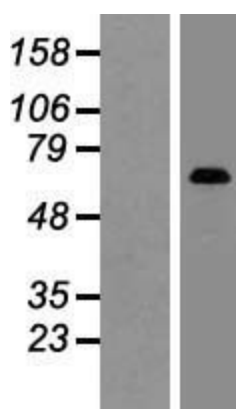
Locus ID: 5777

<b>UniProt ID:</b>	<a href="#">P29350</a>
<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>MW:</b>	67.7 kDa
<b>Gene Summary:</b>	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]

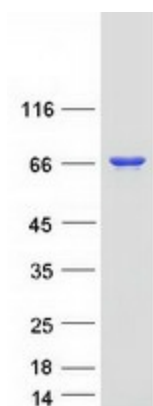
### Product images:



Circular map for RC200728



Western blot validation of overexpression lysate (Cat# [LY409133]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200728 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PTPN6 protein (Cat# [TP300728]). The protein was produced from HEK293T cells transfected with PTPN6 cDNA clone (Cat# RC200728) using MegaTran 2.0 (Cat# [TT210002]).