

Product datasheet for **RC226039**

SHP1 (PTPN6) (NM_080549) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHP1 (PTPN6) (NM_080549) 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)



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ORF Nucleotide Sequence:

>RC226039 representing NM_080549
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGGTGAGGTGGTTTCACCGAGACCTCAGTGGGCTGGATGCAGAGACCCTGCTCAAGGGCCGAGGTGTCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence:

>RC226039 representing NM_080549
 Red=Cloning site Green=Tags(s)

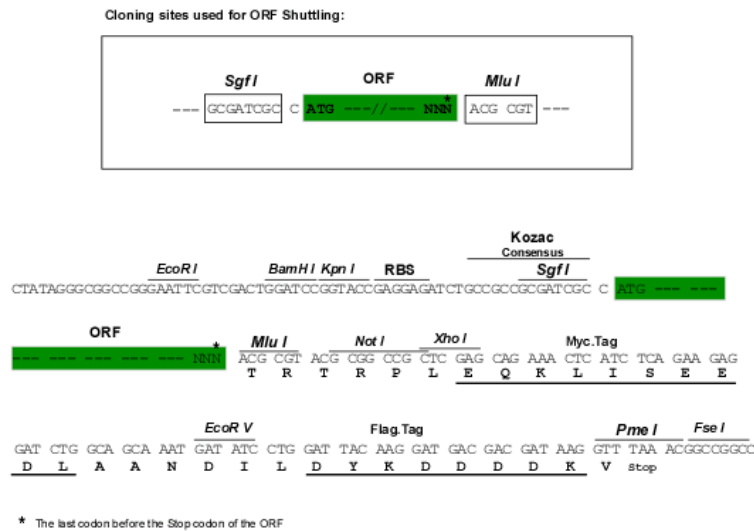
MVRWFHRLDGLDAETLLKGRGVHGSFLARPSRKNQGFSLSVRVGDQVTHIRIQNSGDFYDLYGGEKFA
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 TREVEKGRNKCVPYWEVGMQRAYGPYSVTNCGEHDTEYKLRTLQVSPLDNGDLIREIWHYQYLSWPDH
 GVPSEPGVLSFLDQINQRQESLPHAGPIIVHCSAGIGRTGTIIVIDMLMENISTKGLDCDIDIQTIQM
 VRAQRSGMVQTEAQYKFIYVAIAQFIETTKKKLEVLSQKQSEYGNITYPPAMKNAHAKASRTSSKSL
 ESSAGTVAASPVRRGGQRGLPVPGPVLPDLHQLPVLAPLHPAADTRRMCMRTCTLRTRGRRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8070_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_080549

ORF Size: 1872 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.

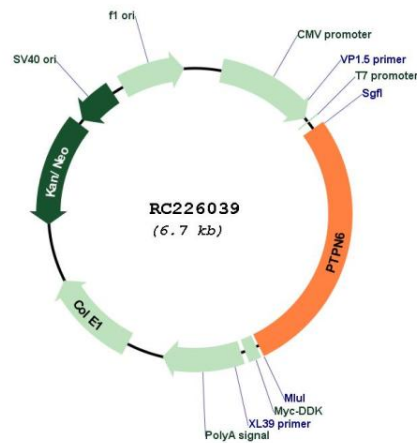
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_080549.3](#), [NP_536859.1](#)

RefSeq ORF: 1875 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
MW:	70 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. 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 RC226039