

Product datasheet for **RC216320**

SIRP alpha (SIRPA) (NM_001040023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIRP alpha (SIRPA) (NM_001040023) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SIRP alpha
Synonyms:	BIT; CD172A; MFR; MYD-1; P84; PTPNS1; SHPS1; SIRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>NM_001040023 ORF sequence, RC216320 may differ due to SNPs.

Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGCCCGCCGGCCCGCCCGCCCGCCCGCCCGCTCGGGCCGCTGCTCTGCCTGCTGCTCGCCGCTCCTGC
GCCTGGTCAGGAGTGGCGGGTGAAGGAGAGCTGCAGGTGATTAGCCTGACAAGTCCGTGTTGGTTGCA
GCTGGAGAGACAGCCACTCTGCGCTGCACTGCGACCTCTCTGATCCCTGTGGGGCCCATCCAGTGGTTC
AGAGGAGCTGGACCAGGCCGGGAATTAATCTACAATCAAAAAGAAGGCCACTTCCCCGGGTAACAACCT
GTTTCAGACCTCACAAGAGAAACAACATGGACTTTTCCATCCGCATCGGTAACATCACCCAGCAGAT
GCCGGCACCTACTACTGTGTGAAGTTCGGAAAGGGAGCCCCGATGACGTGGAGTTAAGTCTGGAGCA
GGCACTGAGCTGTCTGTGCGGCCAAACCTCTGCCCCCGTGGTATCGGGCCCTGCGGCGAGGGCCACA
CCTCAGCACACAGTGAGCTTACCTGCGAGTCCCACGGCTTCTCACCCAGAGACATCACCTGAAATGG
TTCAAAAATGGGAATGAGCTCTCAGACTCCAGACCAACGTGGACCCCGTAGGAGAGAGCGTGTCTCTAC
AGCATCCACAGCACAGCAAGGTGGTGTGACCCGCGAGGACGTTCACTCTCAAGTCATCTGCGAGGTG
GCCACGTCACCTTGACGGGGGACCTTCTCGTGGGACTGCCAATTGTCTGAGACCATCCGAGTTCCA
CCCACCTTGAGAGTTACTCAACAGCCCGTGAGGGCAGAGAACCAGGTGAATGTCACCTGCCAGGTGAGG
AAGTTCTACCCCCAGAGACTACAGCTGACCTGGTTGGAGAATGGAAACGTGTCCCGGACAGAAACGGCC
TCAACCGTTACAGAGAACAAGGATGGTACCTACAACCTGGATGAGCTGGCTCCTGGTGAATGTATCTGCC
CACAGGGATGATGTGAAGCTCACCTGCCAGGTGGAGCATGACGGGCAGCCAGCGGTGAGCAAAAGCCAT
GACCTGAAGGTCTCAGCCACCCGAAGGAGCAGGGCTCAAATACCGCCGCTGAGAACACTGGATCTAAT
GAACGGAACATCTATATTGTGGTGGTGTGGTGTGCACCTTGTGGTGGCCCTACTGATGGCGCCGCTC
TACCTCGTCCGAATCAGACAGAAGAAAGCCAGGGCTCCACTTCTCTACAAGTTGATGAGCCCGAG
AAGAATGCCAGAGAAATAACACAGGACACAAATGATATCACATATGCAGACCTGAACCTGCCAAGGGG
AAGAAGCCTGCTCCCGAGCTGCGGAGCCCAACACACAGGAGTATGCCAGCATTAGACCAGCCCG
CAGCCCGCTGCGAGGACACCCTCACCTATGCTGACCTGGACATGGTCCACCTCAACCGACCCCAAG
CAGCCCGCCCAAGCCTGAGCCGCTCTCTCAGAGTACGCCAGCGTCCAGGTCCCGAGGAAG
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
```

Protein Sequence:

>Peptide sequence encoded by RC216320

Blue=ORF Red=Cloning site Green=Tag(s)

```
MEPAGPAPGRLGPLLLCLLLAASCAWSGVAGEEELQVIQPKSVLVAAGETATLRCTATSLIPVGPVQWF
RGAGPGRELIYNQKEGHFPRVTTVSDLTKRNNMDFSIRIGNITPADAGTYCVKFRKGGSPDDVEFKSGA
GTELSVRAKPSAPVVSGPAARATPQHTVSFTCESHGFSPRDLTKWFKNGNELSDFQTNVDPVGVSVSY
SIHSTAKVVLTRDVDHSQVICEVAHVTLQGDPLRGTANLSETIRVPPTLEVTTQPVRAENQVNVTCQVR
KFYPQRLQLTWLENGNVSRTETASTVTENKDGTYNWMWLLVNVSAHRDDVKLTQVEHGDQPAVSKSH
DLKVSAPKPEQGSNTAAGENTGSNERNIYIVVGVVCTLLVALLMAALYLVRIRQKKAQGSTSSTRLHEPE
KNAREITQDNDITYADLNLPKGKPPAQAAEPNNHTEYASIQTSQPASEDTLYADLDMVHLNRPK
QPAPKPEPSFSEYASVQVPRK
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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Recombinant protein using RC216320 also available, [TP316320](#)

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001040023

ORF Size: 1509 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_001040023.2](#)

RefSeq Size: 4580 bp

RefSeq ORF: 1515 bp

Locus ID: 140885

UniProt ID: [P78324](#)

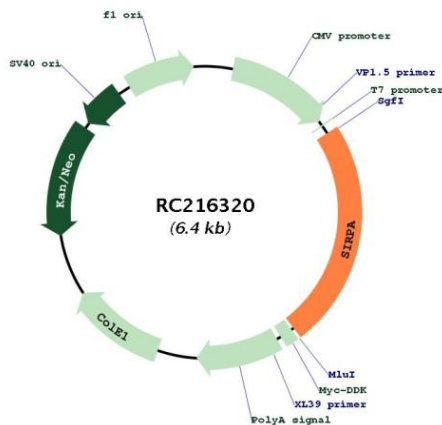
Cytogenetics: 20p13

Protein Families: Druggable Genome, Phosphatase, Transmembrane

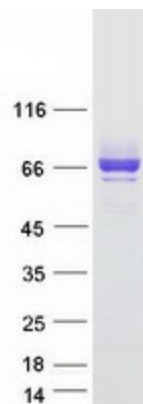
MW: 55 kDa

Gene Summary: The protein encoded by this gene is a member of the signal-regulatory-protein (SIRP) family, and also belongs to the immunoglobulin superfamily. SIRP family members are receptor-type transmembrane glycoproteins known to be involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes. This protein can be phosphorylated by tyrosine kinases. The phospho-tyrosine residues of this PTP have been shown to recruit SH2 domain containing tyrosine phosphatases (PTP), and serve as substrates of PTPs. This protein was found to participate in signal transduction mediated by various growth factor receptors. CD47 has been demonstrated to be a ligand for this receptor protein. This gene and its product share very high similarity with several other members of the SIRP family. These related genes are located in close proximity to each other on chromosome 20p13. Multiple alternatively spliced transcript variants have been determined for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC216320



Coomassie blue staining of purified SIRPA protein (Cat# [TP316320]). The protein was produced from HEK293T cells transfected with SIRPA cDNA clone (Cat# RC216320) using MegaTran 2.0 (Cat# [TT210002]).