

Product datasheet for **RG207315**

SIRP alpha (SIRPA) (NM_080792) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SIRP alpha (SIRPA) (NM_080792) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SIRPA
Synonyms:	BIT; CD172A; MFR; MYD-1; P84; PTPNS1; SHPS1; SIRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG207315 representing NM_080792
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGCCCGCCGGCCCGCCCGCCCGCCCGCTCGGGCCGCTGCTCGCTGCTCGCCGCGTCTGCG
 CCTGGTCAGGAGTGGCGGTGAGGAGGAGCTGCAGGTGATTTCAGCCTGACAAGTCCGTATCAGTTGCAGC
 TGGAGAGTCGGCCATTCTGCACTGCACTGTGACCTCCCTGATCCCTGTGGGGCCATCCAGTGGTTCAGA
 GGAGCTGGACCAGCCGGGAATTAATCTACAATCAAAAAGAAGGCCACTTCCCCGGGTAACAACGTGTT
 CAGAGTCCACAAAGAGAGAAAACATGGACTTTTCCATCAGCATCAGTAACATCACCCAGCAGATGCCGG
 CACCTACTACTGTGTGAAGTTCGGAAAGGGAGCCCTGACACGGAGTTAAAGTCTGGAGCAGGCACTGAG
 CTGTCTGTGCGTGCCAAACCTCTGCCCCGTTGATCGGGCCCTGCGGCGAGGGCCACACCTCAGCACA
 CAGTGAGCTTACCTGCGAGTCCACGGCTTCTCACCCAGAGACATCACCTGAAATGGTTCAAAAATGG
 GAATGAGCTCTCAGACTCCAGACCAACGTGGACCCCGTAGGAGAGAGCGTGTCTACAGCATCCACAGC
 ACAGCCAAGGTGGTGTGACTACCCGCGAGGACGTTCACTCTCAAGTCATCTGCGAGGTGGCCACGTCACCT
 TGCAGGGGGACCTCTTCGTGGGACTGCCAACTTGTCTGAGACCATCCGAGTTCACCCACCTTGGAGGT
 TACTCAACAGCCCGTGAGGGCAGAGAACCAGGTGAATGTACCTGCCAGGTGAGGAAGTTTACCCCCAG
 AGACTACAGCTGACCTGGTTGGAGAATGGAACCGTGTCCCGGACAGAAACGGCCCTCAACCGTTACAGAGA
 ACAAGGATGGTACCTACAACCTGGATGAGCTGGCTCCTGGTGAATGTATCTGCCACAGGGATGATGTGAA
 GCTCACCTGCCAGGTGGAGCATGACGGGCAGCCAGCGGTGAGCAAAAGCCATGACCTGAAGGTCTCAGCC
 CACCCGAAGGAGCAGGGCTCAAATACCGCCGCTGAGAACACTGGATCTAATGAACGGAACATCTATTG
 TGGTGGGTGTGGTGTGCACCTTGTGGTGGCCCTACTGATGGCGCCCTACCTCGTCCGATCCAGTCA
 GAAGAAAAGCCAGGGCTCCACTTCTTCTACAAGTTGTCATGAGCCCGAGAGAAGAATGCCAGAGAAAATAACA
 CAGGACACAAATGATATCACATATGCAGACCTGAACCTGCCAAAGGGGAAGAAGCCTGCTCCCCAGGCTG
 CGGAGCCCAACAACCACACGGAGTATGCCAGCATTGAGCCAGCCCGCAGCCCGCGTGGAGGACACCTT
 CACCTATGCTGACCTGGACATGGTCCACCTCAACCGGACCCCAAGCAGCCGGCCCAAGCCTGAGCCG
 TCCTTCTCAGAGTACGCCAGCGTCCAGGTCCCGAGGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207315 representing NM_080792
 Red=Cloning site Green=Tags(s)

MEPAGPAPGRLGPLLCLLLAASCAWSGVAGEEELQVIQPKSVSVAAGESAILHCTVTSVIPVGPPIQWFR
 GAGPARELIYNQKEGHFPRVTTVSESTKRENMFSSISISNITPADAGTYCVKFRKGSPDTEFKSGAGTE
 LSVRAKSPAPVVS GPAARATPQHTVSFTCESHGFSRDIITLKWFKNGNELSDFQTNVDPVGESVSYSIHS
 TAKVVLTRDVDHSQVICEVAHVTLQGDPLRGTANLSETIRVPPTLEVTQQPVRAENQVNVTCQVRKFYPQ
 RLQLTWLENGNVSRTETASTVTENKDGTYNWSWLLVNVSAHRDDVKLTCQVEHDGQPAVSKSHDLKVSA
 HPKEQGSNTAENTGSNERNIYIVVGVVCTLLVALLMAALYLVRIRQKKAQGSTSSTRLHEPEKNAREIT
 QDTNDITYADLNLPGKPKPAPQAAEPNNHTEYASIQTSPQPASEDTLTYADLDMVHLNRTPKQPAPKPEP
 SFSEYASVQVPRK

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Kozac
Consensus

EcoR I BamH I Kpn I RBS Sgf I Asc I

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

Hind III Nhe I Rsr II Mlu I Not I Xho I GFP Tag

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---

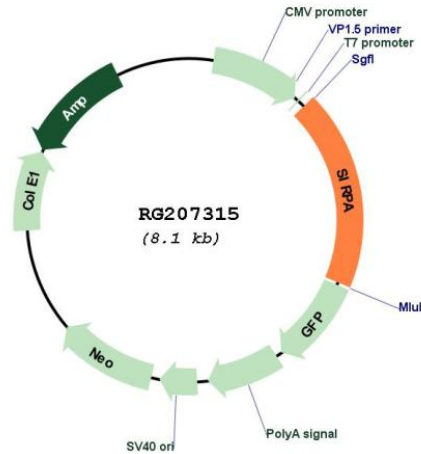
T R T R P L E M E S D - - -

Pme I Fse I

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - - E E R V Stop

Plasmid Map:



ACCN: NM_080792

ORF Size: 1512 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_080792.1](#), [NP_542970.1](#)

RefSeq Size: 3872 bp

RefSeq ORF: 1515 bp

Locus ID: 140885

UniProt ID: [P78324](#)

Cytogenetics: 20p13

Domains: ig, IGv, IGc1, IG

Protein Families: Druggable Genome, Phosphatase, Transmembrane

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]