

Product datasheet for **SC112891**

Serine racemase (SRR) (NM_021947) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Serine racemase (SRR) (NM_021947) Human Untagged Clone
Tag:	Tag Free
Symbol:	Serine racemase
Synonyms:	ILV1; ISO1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC112891 sequence for NM_021947 edited (data generated by NextGen Sequencing)

```

ATGTGTGCTCAGTATTGCATCTCCTTTGCTGATGTTGAAAAAGCTCATATCAACATTTCGA
GATTCTATCCACCTCACACCAGTGCTAACAAGCTCCATTTTGAATCAACTAACAGGGCGC
AATCTTTTCTTCAAATGTGAACCTTCCAGAAAACAGGATCTTTTAAAGATTCGTGGTGCT
CTCAATGCCGTCAGAAGCTTGGTTCCTGATGCTTTAGAAAGGAAGCCGAAAGCTGTTGTT
ACTCACAGCAGTGGAAACCATGGCCAGGCTCTCACCTATGCTGCCAAATTGGAAGGAATT
CCTGCTTATATTGGTGGCCAGACAGCTCCAGACTGTAAAAAAGTGAATACAAGCC
TACGGAGCGTCAATTGTATACTGTGAACCTAGTGATGAGTCCAGAGAAAATGTTGCAAAA
AGAGTTACAGAAGAAAACAGAAGGCATCATGGTACATCCCAACCAGGAGCCTGCAGTGATA
GCTGGACAAGGGACAATTGCCCTGGAAGTGTGAACCAGGTTCCCTTGGTGGATGCACTG
GTGGTACCTGTAGGTGGAGGAGGAATGCTTGCTGGAATAGCAATTACAGTTAAGGCTCTG
AAACCTAGTGTGAAGGTATATGCTGCTGAACCCTCAAATGCAGATGACTGCTACCAAGTCC
AAGCTGAAGGGGAAACTGATGCCAATCTTTATCCTCCAGAAAACCATAGCAGATGGTGTC
AAATCCAGCATTGGCTTGAACACCTGGCCTATTATCAGGGACCTTGTGGATGATATCTTC
ACTGTCACAGAGGATGAAATTAAGTGTGCAACCCAGCTGGTGTGGGAGAGGATGAAACTA
CTCATTGAACCTACAGCTGGTGTGGAGTGGCTGCTGTGCTGTCTCAACATTTTCAAAC
GTTTCCCAGAAAGTAAAGAACATTTGTATTGTGCTCAGTGGTGGAAATGTAGACTTAACC
TCCTCCATAACTTGGGTGAAGCAGGCTGAAAGGCCAGCTTCTTATCAGTCTGTTTCTGTT
TAA

```

Clone variation with respect to NM_021947.1



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_021947 unedited
 NGTCANGATTTGTATACGACTTCTATAGGCGGCCGCGCAATTCGCACGAGGGCGCGCGGT
 GGCTGGAGCTGGAGGCGCGGCCGCGGTGAGCTGAGAACCATGTGTGCTCAGTATTGCATC
 TCCTTTGCTGATGTTGAAAAAGCTCATATCAACATTCGAGATTCTATCCACCTCACACCA
 GTGCTAACAAAGCTCCATTTTGAATCAACTAACAGGGCGCAATCTTTTCTCAAATGTGAA
 CTCTTCCAGAAAAACAGGATCTTTAAGATTCTGTTGCTCTCAATGCCGTCAGAAAGCTTG
 GTTCTGATGCTTTAGAAAAGGAAGCCGAAAGCTGTTGTTACTCACAGCAGTGAAACCAT
 GGCCAGGCTCTCACCTATGCTGCCAAATTGGAAGGAATTCCTGCTTATATTGGTGCC
 CAGACAGCTCCAGACTGTAAAAAATTGCAATACAAGCCTACGGAGCGTCAATTGTATAC
 TGTGAACCTAGTGATGAGTCCAGAGAAAATGTTGCAAAAAGAGTTACAGAAGAAACAGAA
 GGCATCATGGTACATCCCAACCAGGAGCCTGCAGTGATAGCTGGACAAGGGACAATTGCC
 CTGGAAGTGTGAACCAGGTTCTTTGGTGGATGCACTGGTGGTACCTGTAGGTGGAGGG
 AGGAAATGCTTGCTGGAATAGCAATTACAGTTAAGGCTCTGAAACCTAGTGTGAAGGTAT
 ATGCTGTGAACCCTCAAATGCAGATGACTGCTACCAGTCCAAGCTGAAGNGAAACTGA
 TGCCCAATCTTTATCCTNCAGAAACCATACANATGGTGTCAAATCCAGCATTGGCTTGAA
 CACCTGNCCTATNATCAGGNACCNTGTGGNATGATATCCTCACTGTCACAGAGGATGAAA
 TTAAGTGTGCACCCAGCTGGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_021947 unedited
 GTATGGCACTTCCAGGGCCGNAAGCACTGGGGAGGGGTACAGGGATGCCACCCGGGA
 TCTGTTCCAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTT
 TTTTGGATGAACACCGTTTTCTTGTATTATTTAAATTTGGGAGCCAAATGGTATGGAGA
 AGGTAATGATGGTTTTCAAATACAGTAAGTCTTCATTTAACATTGNTAATAGAAACATG
 AAAACTCCAACCTTTACGTGAAACAATGTATAGCCAGCCCTCAAATACTGGCCTTTGTTA
 ACATTCCTTTCTTGGGACAACCTGATGAAAAAGATGGGNNTTGGATACATATTTTCTCT
 GGAAACAAGTTTCTAGACACTTTGACAAGGTTAGAGTGGCTTACAGTTACCCAATTTAAC
 CAAATGGGCTTGGCACGGAGACAAAACCGCGCTGTATGGGGTTTTAAGGCCGGGCATAAA
 GAAGACCTGGGCGGGAATCCAAAAGCTCTTTCGTTGTGCTTTAGAAAGGCACCCCTTTG
 TGCTAGGCTTTTTTTGGAGGAACACAAAAGGCTTTAAGAAAGGTTAGGGGGGATCCTT
 TCAAATTTTACTAGAAGCAGAGTCCGTTCTGTCTCACANAGTGGGTTAAGAGAGGAAGG
 GANCCCTTGCCTTGTGAAAAGAGGGGGGTTACCTTTTGGGAAAAGGGAACCTTGCTT
 AAAAGGGTGATTAAGAAGAGGGGGGGTTATACAGGACTGACAAAAGGGGGGCCCA
 AAAGAAATAAGGACTTTGTGAGACACG

Restriction Sites:

NotI-NotI

ACCN:

NM_021947

Insert Size:

2450 bp

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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:	<u>NM_021947.1</u> , <u>NP_068766.1</u>
RefSeq Size:	2477 bp
RefSeq ORF:	1023 bp
Locus ID:	63826
UniProt ID:	<u>Q9GZT4</u>
Cytogenetics:	17p13.3
Domains:	PALP
Protein Pathways:	Glycine, serine and threonine metabolism
Gene Summary:	Catalyzes the synthesis of D-serine from L-serine. D-serine is a key coagonist with glutamate at NMDA receptors. Has dehydratase activity towards both L-serine and D-serine. [UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).