

## Product datasheet for **SC119783**

### **SDF1 (CXCL12) (NM\_000609) Human Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SDF1 (CXCL12) (NM\_000609) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** SDF1  
**Synonyms:** IRH; PBSF; SCYB12; SDF1; TLSF; TPAR1  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_000609 edited  
 GAATTCGGCACGAGGGCTCTGCCTCAGCGACGGGAAGCCCGTCAGCCTGAGCTACAGATG  
 CCCATGCCGATTCTTCGAAAGCCATGTTGCCAGAGCCAACGTCAAGCATCTCAAATTCT  
 CAACACTCCAAACTGTGCCCTTCAGATTGTAGCCCGGCTGAAGAACAACAACAGACAAGT  
 GTGCATTGACCCGAAGCTAAAGTGGATTCAAGGAGTACCTGGAGAAAGCTTTAAACAAGTA  
 AGCACAACAGCCAAAAGGACTTCCGCTAGACCCACTCGAGGAAAACAAAACTTGTG  
 AGAGATGAAAGGGCAAAGACGTGGGGGAGAGGGGGCCTTAACCATGAGGACCAGGTGTGT  
 GTGTGGGGTGGGCACATTGATCTGGGATCGGGCCTGAGGTTTCCAGCATTAGACCCTG  
 CATTTATAGCATACGGTATGATATTGCAGCTTATATTCATCCATGCCCTGTACCTGTGCA  
 CGTTGGAACCTTTTACTGTTTCTAAGAAAGAAATTGTATTATCAACAGCATT  
 TCAAGCAGTTAGTTCCTCATGATCATACAATCATCATCATTCTCATTCTCATTITTTA  
 AATCAACGAGTACTTCAAGATCTGAATTTGGCTTGTGGAGCATCTCCTCTGCTCCCCT  
 GGGGAGTCTGGGCACAGTCAGGTGGTGGCTTAACAGGGAGCTGGAAAAAGTGCCTTTCT  
 TCAGACACTGAGGCTCCCGCAGCAGCGCCCTCCCAAGAGGAAGGCCCTCTGTGGCACTCA  
 GATACCGACTGGGGCTGGGCGCCGCCACTGCCTTACCTCCTCTTTCAACCTCAGTGATT  
 GGCTCTGTGGGCTCCATGTAGAAGCCACTTACTGGGACTGTGCTCAGAGACCCCTCTC  
 CCAGCTATTCTACTCTCTCCCGACTCCGAGAGCATGCTTAATCTTGCTTCTGCTTCTC  
 ATTTCTGTAGCCTGAXXXXXXXXXXXXXXXXXXXXXXXXXXCTCGAC



[View online »](#)

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000609 unedited  
 GGGTTCACGATGTTGTAACACGATTTACTATAGGGCGGCCGCGCAATTCGCACGAGGGTC  
 AGCCGCATTGCCCGCTCGGCGTCCGGCCCCGACCCGCGCTCGTCCGCCCGCCGCCCGC  
 CCGCCCGCCATGAACGCCAAGGTCGTGGTCGTGCTGGTCTCGTGCTGACCCGCGCTCT  
 GCCTCAGCGACGGGAAGCCCGTCAGCCTGAGCTACTGATGCCATGCCGATTCTTCGAAA  
 GCCATGTTGCCAGAGCCAACGTCAAGCATCTCAAAATTTCTCAACTCCAAACTGTGCC  
 TTCAGATTGTAGCCCGGCTGAAGAACAACAACAGACAAGTGTGCATTGACCCGAAGCTAA  
 AGTGATTTCAGGAGTACCTGGAGAAAGCTTTAAACAAGAGTTCAAGATGTGAGAGGGTC  
 AGACGCCTGAGGAACCCCTTACAGTAGGAGCCAGCTCTGAAACAGTGTTAGGGAAGGGC  
 CTGCCACAGCCTCCCCTGCCAGGGCAGGGCCCCAGGCATTGCCAAGGGCTTTGTTTTGCA  
 CACTTTGCCCATATTTTACCATTGATTATGTAGCAAAATATATGACATTTATTTTTCA  
 TTTAGTTCGATTATTTTCAAGTGTCACTGGCGACACGTAGCAGCTTACACTAAGGCCATTAT  
 TGTACTTGCCCTTATTAGAGTGCCTTCCACGGAGCCACTCCTTTGACTCAGGGCTCCTG  
 GGTTCGTA CTCTGAACTGTGCACGTGGAGAGACTGGGCTTCAGGCAGCCTGGCCCCA  
 TTGTCAGCCCTAGGGTGGAAACCCCAAAAGGACACCTCGGGGTGCCCGAACCATTCA  
 ACCTGGGCATACCTATTCAAGGTCTCTCTCGTGCCAGGATGGGGCAGGCCCTGCGA  
 AGCTCCCCCTCCT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_000609 unedited  
 TGGACCGCGCCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTACATTTGAGTACA  
 GAACCTTTATTAGAAAATTATAAGTGCATATACATTTTTTTCATTGGTATGACTTCAAAGT  
 AGAAATTGTTGTTTCTCAAAGAGTTGTTTCTTATTTATTTTTTAAAGCACGCTGCGTATA  
 GGAATTGGCCTTCTCCTGGACCATTTTACATTATCTGGGAGATGCAATTGAAACAATAC  
 AAAATACAGTATTCATCACATTTAACACTGAATCATTCACTGCTCAGAGACTGAGAGTCC  
 AGCGAGGTTGCAAAATAACAAATTTTCTACATGGTTTTATCAGTGGTCTGCTTAGGGGAT  
 TTGGAAGTTTCTAGGGAATATTTCCAGGAATGGGGCTCCTTCAGAATGAGTCAGGGAAG  
 CTCTGTAGAGGGATCAGAGCACTCAAATTTCTATCCAGCTGGAAAAGGGTGTAGCACCTG  
 GGAAAGGCGATCAACTCCAGTCAGGGAGCCACGGTGATAACACCAGTCAGACGATCAC  
 ACCATGGAAGGGTCCAATGAGATCCAATGGAAAGACTTAGAACATCTAAGGTTGGGGGAG  
 GTGCAACCTTCTGCTATTCAGCCCTCTGCTCCAAGCGGAACCTTTTTTCTCAGGAGGTA  
 ATCTCTAATAACAAGCAGAGCGCCCTCTGGAGCCTCCTCGCTGGTATCTCAGTGCCTGGA  
 CAGAGGGGGACACACCACAGCACAAACACGTGGCACAGACTCAATCCCAACACACAGCCA  
 GTC AACGAGCCTNTGCCCTTCTCTGGTCTGAAACAGAGCCTGCAGCGAGGGCTCTG  
 AAGAGGTACAGGTAGCCAGGCAGTGTTAGGTATAGCCACACCAGTCCCGGAGGACAGAG  
 AAGCACCTATAAACACTCGTGGCGCCCTGN

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000609

**Insert Size:**

3520 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](mailto: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:**

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\\_000609.3](#), [NP\\_000600.1](#)

**RefSeq Size:** 3560 bp

**RefSeq ORF:** 282 bp

**Locus ID:** 6387

**UniProt ID:** [P48061](#)

**Cytogenetics:** 10q11.21

**Domains:** IL8

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein

**Protein Pathways:** Axon guidance, Chemokine signaling pathway, Cytokine-cytokine receptor interaction, Leukocyte transendothelial migration

**Gene Summary:**

This antimicrobial gene encodes a stromal cell-derived alpha chemokine member of the intercrine family. The encoded protein functions as the ligand for the G-protein coupled receptor, chemokine (C-X-C motif) receptor 4, and plays a role in many diverse cellular functions, including embryogenesis, immune surveillance, inflammation response, tissue homeostasis, and tumor growth and metastasis. Mutations in this gene are associated with resistance to human immunodeficiency virus type 1 infections. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2014] Transcript Variant: This variant (2) contains an alternate exon, and differs in the 3' coding region and UTR compared to variant 1. The resulting protein (isoform beta) is longer and has a distinct C-terminus compared to isoform alpha. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.