

Product datasheet for **RC229575**

SDF1 (CXCL12) (NM_001178134) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SDF1 (CXCL12) (NM_001178134) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: CXCL12
Synonyms: IRH; PBSF; SCYB12; SDF1; TLSF; TPAR1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC229575 representing NM_001178134
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAACGCCAAGGTCGTGGTCTGCTGGTCTCGTGCTGACCGCGCTCTGCCTCAGCGACGGAAGCCCG
TCAGCCTGAGCTACAGATGCCCATGCCGATTCTCGAAAGCCATGTTGCCAGAGCCAACGTCAAGCATCT
CAAAATTCTCAACTCCAACTGTGCCCTTCAAGATTGTAGCCCGCTGAAGAACAACAACAGACAAGT
TGCATTGACCCGAAGCTAAAGTGGATTCAGGAGTACCTGGAGAAAGCTTTAAACAACCTGATCAGCGCCG
CACCAGCCGGAAGAGGGTATTGCTGGGGCTCGTGCCCTGCATCCCTCTCCTCCAGGGCTGCCCCAC
AGCTCGGGCCCTCTGTGAGATCCGTCTTTGGCCTCCTCCAGAATGGAGCTGGCCCTCTCCTGGGGATGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC229575 representing NM_001178134
Red=Cloning site Green=Tags(s)

MNAKVVVVLVLTALCLSDGKPVLSYRCPFRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQV
CIDPKLKIWEYLEKALNNLISAAPAGKRVIAGARALHPSPPRACPTARALCEIRLWPPPEWSWSPGDV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

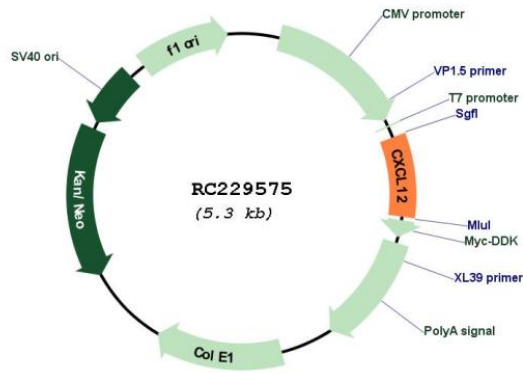


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001178134
 ORF Size: 420 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](#)

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_001178134.2](#)

RefSeq ORF: 423 bp

Locus ID: 6387

UniProt ID: [P48061](#)

Cytogenetics: 10q11.21

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

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

MW: 15.9 kDa

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]