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# Product datasheet for SC108065

## SMCR7L (MIEF1) (NM_019008) Human Untagged Clone

### Product data:

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|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | SMCR7L (MIEF1) (NM_019008) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | SMCR7L |
| **Synonyms:** | AltMIEF1; dJ1104E15.3; HSU79252; MID51; MIEF1-MP; SMCR7L |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pCMV6-XL5 |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |
| **Fully Sequenced ORF:** | >NCBI ORF sequence for NM_019008, the custom clone sequence may differ by one or more nucleotides |

ATGGCAGGCGCTGGTGAGCGCAAAGGCAAGAAGGATGACAATGGCATTGGCACGGCCATTGACTTTGTGC
TCTCCAATGCCCGGCTGGTGCTGGGGGTGGGTGGAGCGGCCATGCTGGGCATCGCCACGCTGGCAGTTAA
GCGGATGTACGATCGGGCGATCAGTGCCCCTACCAGCCCCACCCGCCTGAGCCATTCGGGGAAAAGGAGC
TGGGAAGAACCCAACTGGATGGGCTCCCCACGACTGCTGAACAGGGACATGAAGACGGGCCTGAGCCGGT
CCTTGCAGACCCTTCCCACAGACTCCTCCACCTTCGACACAGATACATTCTGCCCGCCCCGGCCCAAGCC
AGTGGCCAGGAAGGGCCAGGTAGACTTGAAGAAGTCACGACTCCGCATGTCCCTGCAGGAGAAACTTCTT
ACTTACTACCGGAACCGGGCAGCCATCCCTGCTGGAGAGCAGGCTCGGGCCAAGCAAGCTGCTGTGGACA
TATGTGCCGAGCTCCGGAGCTTCCTGCGGGCCAAGTTGCCTGACATGCCGCTTCGGGACATGTACTTGAG
TGGCAGCCTCTACGATGACCTGCAGGTGGTGACAGCTGACCACATCCAACTCATTGTGCCCCTTGTGCTG
GAGCAGAACCTGTGGTCATGTATTCCTGGTGAAGACACCATCATGAATGTCCCTGGCTTCTTCCTGGTGC
GTCGTGAGAATCCAGAGTACTTTCCTCGTGGGAGCAGTTACTGGGACCGCTGTGTAGTAGGGGGCTACCT
CTCTCCAAAGACAGTCGCAGATACATTTGAGAAGGTAGTGGCTGGCTCCATCAATTGGCCAGCCATAGGG
TCCCTCTTGGACTATGTGATCCGCCCGGCCCCACCCCCAGAAGCCCTCACACTGGAGGTGCAGTATGAGC
GTGACAAACATCTCTTCATTGACTTCCTGCCATCAGTGACCCTCGGTGACACAGTCTTGGTGGCCAAACC
ACACCGGCTAGCCCAGTATGACAACCTGTGGCGGCTGAGCCTGCGTCCCGCGGAGACGGCACGCCTGCGG
GCTCTGGACCAGGCTGACTCGGGCTGCCGATCTCTGTGCCTCAAGATCCTCAAGGCCATATGCAAGTCCA
CCCCGGCTCTGGGCCACCTCACTGCCAGCCAGCTAACCAATGTCATCCTCCACTTGGCCCAGGAGGAGGC
TGACTGGTCTCCGGATATGCTGGCCGACCGTTTCCTGCAGGCCTTGAGGGGACTTATCAGCTACTTAGAG
GCTGGAGTCCTGCCCAGTGCCCTAAACCCCAAGGTGAACTTATTTGCAGAGCTCACCCCTGAAGAAATAG
ACGAATTAGGATACACTCTGTATTGCTCATTGTCTGAGCCAGAGGTGCTGCTGCAGACGTAG



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM_019008 unedited
GGGTTTTCCGACTTAGGTTAACTCNACTCTCCTTTCATGGNNCGGCCGCGCAATTCGGCA
CGAGGCTAGAGGACGCTGAGGCCCTTCTCCACGGCAAATTGGGGAGGATCATTTAGGATC
CTCCAAGGGGAAAGAGGACAAAGGTGCCTTCTGTAGACACTCCTGCTCTCTTCCATCCCC
ATCTTACAGATGTATTAAGAAGCCTCAGATGAGCAATGGCAGGCGCTGGTGAGCGCAAAG
GCAAGAAGGATGACAATGGCATTGGCACGGCCATTGACTTTGTGCTCTCCAATGCCCGGC
TGGTGCTGGGGGTGGGTGGAGCGGCCATGCTGGGCATCGCCACGCTGGCAGTTAAGCGGA
TGTACGATCGGGCGATCAGTGCCCCTACCAGCCCCACCCGCCTGAGCCATTCGGGGAAAA
GGAGCTGGGAAGAACCCAACTGGATGGGCTCCCCACGACTGCTGAACAGGGACATGAAGA
CGGGCCTGAGCCGGTCCTTGCAGACCCTTCCCACAGACTCCTCCACCTTCGACACAGGAG
AAACTTCTTACTTACTACCGGAACCCGGCAGCCCTCCCTGCTGGAGAGCACGCTCGGGCC
AAGCAAGCTGCTGTGGACATTTTGTGCCGAGCTCCGGAAGCTTCTGCGGGCCAAGTTGCC
CTGACTTGCCGCTTCGGGACATGTACTTGAGTGGCAGCCTCTACCATGACCTGCAAGTGG
TGACAGCTGACCACTTCCACTCATTGTGCCCCCTGGGCTGGACCAAACCCCGTGGGCATG
TATTCCTGGGGAGACCCCTTCTTGATGTCCCTGGCCTCCTTCTGAACGCGTGGGAAAATA
CCAAATACCTTCCCTCGGGGGAACAGTTACCGGGACCCGTGGTGGAACAAGGGGCCTACC
CTCTTTCAAAGACAGTGG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM_019008 unedited
TTACCGCGGCCGCATTCTAGAGTCGAGTTTTTTTTTTTTTTTTTAACTCTCATTTGATT
CTGACCAACAGAACAGGGTAGATGAGCTCTCTCAAGATTCTCAGCTTTATGTTTTTTGTT
CCCTCTCAATACCTTTATGCAAATGAAACTGAAACCACCATAAGAAATCCTTGTTAAGGG
GAAAAGAGGCAAAAAGACCTCTAAATATAGTCAAGGTTAACCCTAGTTCTCAATTTCCTA
ATCTGTGACAAAAGAGGGGCAGGAATCTCTACCCTAAATTGATGTTGAGGTATCGATGCT
AAAGAGTCATTTCCTGTTACTATCGTTGGGAAGGAATGAGACAGCTGCAGAGAGCTTCAC
CAGAACCTCAATGATGGAGAGGTAGTCATTGAAAAAATAAGACAACTTGACGGAAGGAAA
ACAAAATACTGAATGGGCAGATGAGAAACAGAATTATCATCAGAGTCTTGCTACAAACAG
GGAAAAACACAAACCAAGATGACACACGGACATGGTAGATTAAACATTCCCTCCCACCTT
CAGGATACATTTACATTGCAATAAATACTGCAATCTCAGCACCGGCAAACAAGGAGGAAT
GTACGAAATGCCCACCTCCTCCCCTCTGTCTTATCTGTGTGCCTCTTTTCCTTGGGAGCA
CCGATCCCCCCAAGCGCTTGGGTGACAAACAGGACAGGTGGCACACGTCCCCAGCTTGCT
CACTTTCCCCCTTGGCCCTGTCCGGAACGCCTCACAAACACCGCTTCTTCCTTCCTATGT
TAACACCCCCACGACCACGGCTGGCTTTTCGCCCTGTCCTCCCCCCAGGCATTTCCTCAA
CAACACGGTTGCCTTGAACTAACCCGGTCCCCTCCCCATCTTGACCGAACTTTCCCCACA
CTCCCACAATCCCCCCACCCT

**Restriction Sites:** NotI-NotI

**ACCN:** NM_019008

**Insert Size:** 3670 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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).

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| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_019008.4, NP_061881.2 |
| **RefSeq Size:** | 5730 bp |
| **RefSeq ORF:** | 1392 bp |
| **Locus ID:** | 54471 |
| **UniProt ID:** | Q9NQG6 |
| **Cytogenetics:** | 22q13.1 |
| **Protein Families:** | Transmembrane |
| **Gene Summary:** | Mitochondrial outer membrane protein which regulates mitochondrial fission. Promotes the recruitment and association of the fission mediator dynamin-related protein 1 (DNM1L) to the mitochondrial surface independently of the mitochondrial fission FIS1 and MFF proteins. Regulates DNM1L GTPase activity and DNM1L oligomerization. Binds ADP and can also bind GDP, although with lower affinity. Does not bind CDP, UDP, ATP, AMP or GTP. Inhibits DNM1L GTPase activity in the absence of bound ADP. Requires ADP to stimulate DNM1L GTPase activity and the assembly of DNM1L into long, oligomeric tubules with a spiral pattern, as opposed to the ring-like DNM1L oligomers observed in the absence of bound ADP. Does not require ADP for its function in recruiting DNM1L.[UniProtKB/Swiss-Prot Function]<br>Transcript Variant: This variant (1) represents a predominant transcript, which encodes a 463aa protein (isoform 1). |