

Product datasheet for **RG203568**

SMCR7L (MIEF1) (NM_019008) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMCR7L (MIEF1) (NM_019008) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMCR7L
Synonyms:	AltMIEF1; dJ1104E15.3; HSU79252; MID51; MIEF1-MP; SMCR7L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG203568 representing NM_019008
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**C

ATGGCAGGCGCTGGTGAGCGCAAAGGCAAGAAGGATGACAATGGCATTGGCACGGCCATTGACTTTGTGC
 TCTCCAATGCCCCGCTGGTGCTGGGGGTGGGTGGAGCGGCCATGCTGGGCATCGCCACGCTGGCAGTTAA
 GCGGATGTACGATCGGGCGATCAGTGCCCTACCAGCCCCACCCGCTGAGCCATTGGGGAAAAAGGAGC
 TGGGAAGAACCCTGATGGGCTCCCCACGACTGCTGAACAGGGACATGAAGACGGGCTGAGCCGGT
 CCTTGCAGACCTTCCCACAGACTCCTCCACCTTCGACACAGATACATTCTGCCGCCCGGCCAAGCC
 AGTGGCCAGGAAGGGCCAGGTAGACTTGAAGAAGTCACGACTCCGCATGTCCTGCAGGAGAACTTCTT
 ACTTACTACCGGAACCGGCAGCCATCCCTGCTGGAGAGCAGGCTCGGGCAAGCAAGCTGCTGTGGACA
 TATGTGCCGAGCTCCGGAGCTTCTGCGGGCAAGTTGCCTGACATGCCGCTTCGGGACATGTAATTGAG
 TGGCAGCTCTACGATGACCTGCAGGTGGTGACAGCTGACCACATCCAACCTATTGTGCCCTTGTGCTG
 GAGCAGAACTGTGGTCAATGATTCTGGTGAAGACACCATCATGAATGTCCCTGGCTTCTCTGGTGC
 GTCGTGAGAATCCAGAGTACTTCTCGTGGGAGCAGTTACTGGGACCGCTGTGTAGTAGGGGGCTACCT
 CTCTCAAAGACAGTCGCAGATACATTTGAGAAGTAGTGGCTGGCTCCATCAATTGGCCAGCCATAGGG
 TCCCTCTTGGACTATGTGATCCGCCCCGGCCCCACCCCAAGCCCTCACACTGGAGGTGCAGTATGAGC
 GTGACAAACATCTCTTATTGACTTCTGCCATCAGTGACCTCGGTGACACAGTCTTGGTGGCCAAACC
 ACACCGGCTAGCCAGTATGACAACCTGTGGCGGCTGAGCCTGCGTCCGCGGAGACGGCAGCCTGCGG
 GCTCTGGACCAGGCTGACTCGGGCTGCCGATCTCTGTGCCTCAAGATCCTCAAGGCCATATGCAAGTCCA
 CCCCAGGCTCTGGGCCACCTCACTGCCAGCCAGCTAACCAATGTCATCTCCACTTGGCCAGGAGGAGGC
 TGACTGGTCTCCGGATATGCTGGCCGACCGTTTCTGCGAGCCTTGAGGGGACTTATCAGCTACTTAGAG
 GCTGGAGTCTGCCAGTGCCCTAAACCCCAAGGTGAAGTATTTGCAGAGCTCAGCCCTGAAGAAATAG
 ACGAATTAGGATACACTCTGTATTGCTATTGTCTGAGCCAGAGGTGCTGCTGCAGACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

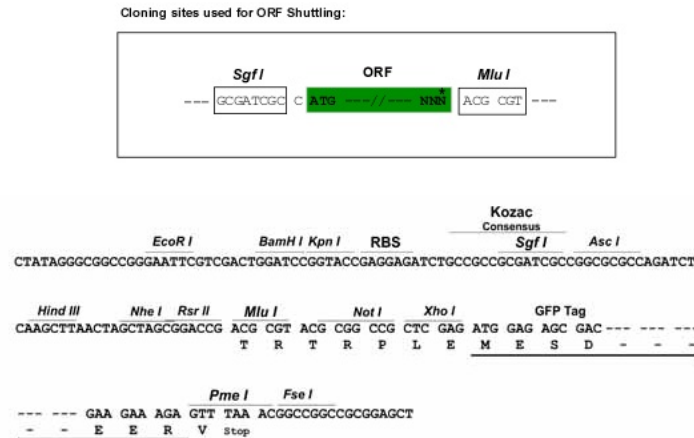
>RG203568 representing NM_019008
 Red=Cloning site Green=Tags(s)

MAGAGERKGGKDDNGIGTAIDFVLSNARLVLVGGAAMLGIATLAVKRMVDRAISAPTSPTRLSHSGKRS
 WEEPNWMGSPRLNDRMKTGLSRSLQTLPTDSTFDTFPPRPKPVARKGQVDLKKSRRLMSLQEKLL
 TYYRNRAAIPAGEQARAKQAQAVDICAELRSFLRAKLPDMPLRDMYLSGSLYDDLQVVTADHIQLIVPLVL
 EQNLWSCIPGEDTIMNVPGFLLVRRENPEYFPRGSSYWDRCVVGGLSPKTVADTFEKKVAGSINWPAIG
 SLLDYVIRPAPPPEALTLEVQYERDKHLFIDFLPSVTLGDTVLVAKPHRLAQYDNLWRLSLRPAETARLR
 ALDQADSGCRSLCLKILKAICKSTPALGHLTASQLTNVILHLAQEEADWSPDMLADRFLLQALRGLISYLE
 AGVLPALNPKNLFAELTPEEIDELGYTLYCSLSEPEVLLQT

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_019008

ORF Size: 1389 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_019008.5](#)

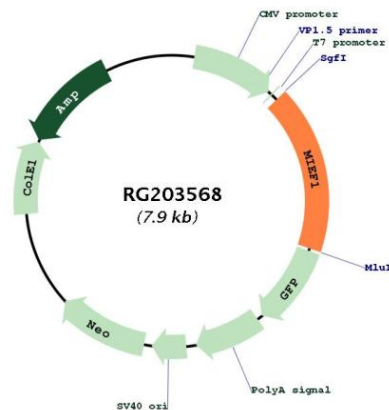
RefSeq Size: 5730 bp

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]

Product images:



Circular map for RG203568