

Product datasheet for **RC218423**

SMCR7 (MIEF2) (NM_139162) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMCR7 (MIEF2) (NM_139162) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMCR7
Synonyms:	COXPD49; MID49; SMCR7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218423 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCAGAGTTCTCCAGAAACGGGGGAAGCGGCGTAGCGACGAAGGGCTGGGCAGCATGGTGGACTTCC
 TCCTGGCCAATGCCCGCCTGGTGTGGGCGTGGGCGGGGCTGCTGTGCTGGGCATTGCCACCCTGGCCGT
 GAAGCGTTTCATTGACAGGGCCACTAGCCCGGGGATGAGGATGACACCAAGGCAGACAGCTGGAAGGAA
 CTGAGCCTGCTCAAGGCCACACCACACTGCAGCCCCGGCCTCCACCTGTGCCCTTAGCCAGCCAGTGT
 TGCCCTTGGCCCCCTCGTCGTCTGCCCCAGAAGGGCCTGCAGAACTGATCCTGAGGTGACACCACAGT
 CAGCTCCCAGCACCGCTGTGTCTGACTGCAGGAGAGGCTGCTGGCCTTCGAGCGGGACCGTGTGACC
 ATCCCAGCAGCCAGGTGGCTTGGCCAAACAGCTGGCTGGCGACATCGCCCTGGAGCTGCAGGCCTACT
 TTCGGAGCAAGTCCCGAACTGCCCTTGGGGCATTCTGCTGGGGGGCCGCTCTACGACGGGTGCA
 GCGGGGGCTGCGGACCATGTGCGTCTCCTGGTCCACTGGTGTGGAGCCGGGCCTGTGGAGCCTGGT
 CCGGGCGTGGACTGTGGCGAGGGACCTCGCTGCTGGGCCGTGCGCAGGACGACGCTTGAATTCGCC
 CCCGTGGGAGCAGCCCCTGGGACCGCTTCTGGTGGGGGCTACCTCTCCTCCCGCGTCTGCTGGAGCT
 ACTCCGAAGGCGCTGGCTGCCTCTGTCAACTGGCCGGCCATTGGCAGCCTTCTCGGGTGCCTGATCCGG
 CCCAGCATGGCCTCGGAGGAGCTGCTGCTCGAGGTGCAGCACGAACGCTGGAGCTCACTGTGGCTGTGC
 TTGTGGCAGTCCCTGGGGTCGATGCTGACGACCGCCTCCTTGGCCTGGCCCCGGAGGGGCTGGCGGG
 GAACCTCTGGCTGCAGGACCTGTATCCAGTGGAGGCTGCTAGGCTGCGAGCCCTGGACGACCATGACGCT
 GGGACTCGCCGGCGGCTGCTGCTGCTGTGTGTCTGCTGCCGTGGTTGCTCGGCTCTGGGGCAGCTAG
 GCGGGGTCACTGACCCAGGTGGTCTGCGTCTGGGGGAGGACAACGTGGATTGGACGGAGGCCTT
 GGGTGAGCGCTTCTGCAAGCCCTGGAGCTGCTCATCGGCAGCCTGGAGCAGGCCAGCCTGCCCTGCCAC
 TTCAACCCAGCGTGAACCTCTCAGCAGCTTGGCTGAGGAGGAGATTGACGACATTGGCTATGCGCTAT
 ACAGTGGCTACAGGAGCCCGAGGGGCTGCTC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218423 protein sequence
 Red=Cloning site Green=Tags(s)

MAEFSQKRGKRRSDEGLGSMVDFLLANARLVLVGGAAVLGIATLAVKRFIDRATSPRDEDDTKADSWKE
 LSLLKATPHLQPRPPAALSQPVLPLAPSSSAPEGPAETDPEVTPQLSSPAPLCLTLQERLLAFERDRVT
 IPAAQVALAKQLAGDIALELQAYFRSKFPELPGAFVPGGPLYDGLQAGAADHVRLVPLVLEPGLWSLV
 PGVDTVARDPRCWAVRRRTQLEFCPRGSSPWDRFLVGGYLSRVLELLLRKALAASVNWPAIGSLLGCLIR
 PSMASELLLLLEVQHERLELTVAVLVAVPGVDADDRLLLAWPLEGLAGNLWLQDLYPVEAARLRALDDHDA
 GTRRRLLLLLCAVCRGCSALGQLGRGHLTQVVLRLGEDNVDWTEALGERFLQALELLIGSLEQASLPCH
 FNPSVNLFFSSLREEEIDDIGYALYSGLQEPEGLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6673_d12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_139162

ORF Size: 1362 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.

RefSeq: [NM_139162.4](#)

RefSeq Size: 2610 bp

RefSeq ORF: 1365 bp

Locus ID: 125170

UniProt ID: [Q96C03](#)

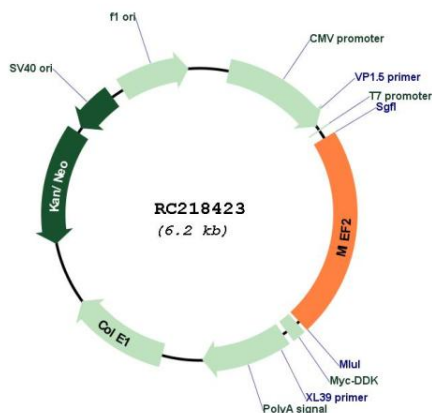
Cytogenetics: 17p11.2

Protein Families: Transmembrane

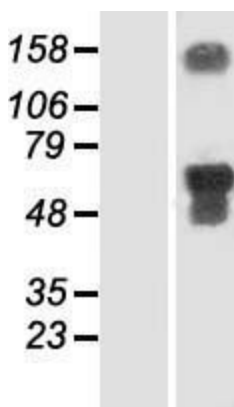
MW: 49.3 kDa

Gene Summary: This gene encodes an outer mitochondrial membrane protein that functions in the regulation of mitochondrial morphology. It can directly recruit the fission mediator dynamin-related protein 1 (Drp1) to the mitochondrial surface. The gene is located within the Smith-Magenis syndrome region on chromosome 17. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jun 2011]

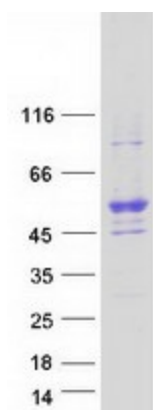
Product images:



Circular map for RC218423



Western blot validation of overexpression lysate (Cat# [LY408365]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218423 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MIEF2 protein (Cat# [TP318423]). The protein was produced from HEK293T cells transfected with MIEF2 cDNA clone (Cat# RC218423) using MegaTran 2.0 (Cat# [TT210002]).