

Product datasheet for **RC205054**

C2ORF47 (MAIP1) (NM_024520) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	C2ORF47 (MAIP1) (NM_024520) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	C2ORF47
Synonyms:	C2orf47
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205054 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGGCCGCTCGTTTGCTACCCAGTTCCTGCACTCTCGGTCGCTGCCCTGCGGGCCGTCCGAC
TCCGGACTCCTGCTGTGGCCGAGGTGAGGCTGCCGTCGGCCACACTTTGCTACTTCTGCCGCTGTCGCT
CGGCTTGGGAGCGCGTTATTTCCACGAAGCGCTAGGGCCTTGGCAGCCTCGGCCTACCTGCCAGGGC
TCCCGGTGGCCAGTGCTCAGCAGCCCGGACTCCCGCAGCCTTCGTTCTTTCCCTGCCTGCCCTCAGC
GCAGCTACAGCACGGAGGAGAAGCCCCAGCAGCACCAGAAAACCAAGATGATCGTCCTGGGATTCTCAA
CCCCATCAACTGGTTAGGACTCGAATTAAGGCCTTCTTATCTGGGCCTATTTGACAAAAGAGTTCAGC
ATCACAGATTCTCCGAGGGAGCGAAGCAGGCTTTTGCTCATGTATCCAAGTTGCTGTCACAGTGTAAAT
TTGATCTGTTGGAAGAACTTGTGGCCAAAGAGGTGCTACATGCATTGAAAGAAAAGGTTACTTCACTACC
TGACAACCATAAAAAATGCCCTTGCTGCTAACATAGATGAAATTGTATTTACATCAACAGGAGACATCTCC
ATTTACTATGATGAGAAAAGGAAGGAAAGTTGTTAACATCCTGATGTGCTTTTGGTATCTAACAGTGCCA
ACATCCCCAGTGAACTTTAAGAGGAGCCAGTGTATTCCAGGTTAAGTTGGGGAATCAGAATGTGGAAAC
TAAACAACCTTCTAGTCAAGCTATGAGTTTCAGAGGGAGTTCACACAAGGAGTAAAGCCTGACTGGACC
ATTGCACGGATTGAACACTCAAAATTATTAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205054 protein sequence
Red=Cloning site Green=Tags(s)

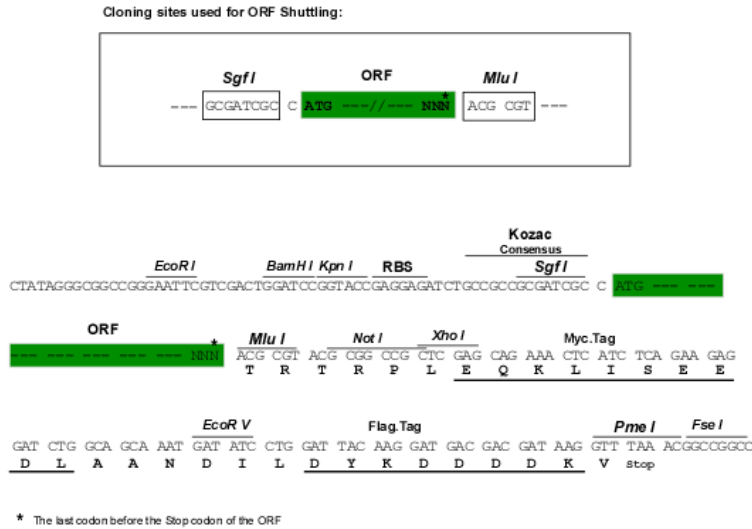
MALAARLLPQFLHSRSLPCGAVRLRTPAVAEVRLPSATLCYFCRCRLGLGAALFPRSARALAASALPAQG
 SRWPVLSPPGLPAAFASFPACPQRSYSTEEKPQQHQKTKMIVLGFSNPINVVRTRIKAFLIWAYFDKEFS
 ITEFSEGAKQAFAHVSKLLSQCKFDLLEELVAKEVLHALKEKVTSLPDNHKNALANIDEIVFTSTGDIS
 IYYDEKGRKFVNILMCFWYLTSANIPSETLRGASVVFQVKLGNQNVETKQLLSASYEFQREF TQGVKPDWT
 IARIEHSKLLE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6439_f11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024520

ORF Size: 873 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_024520.3](#)

RefSeq Size: 1525 bp

RefSeq ORF: 876 bp

Locus ID: 79568

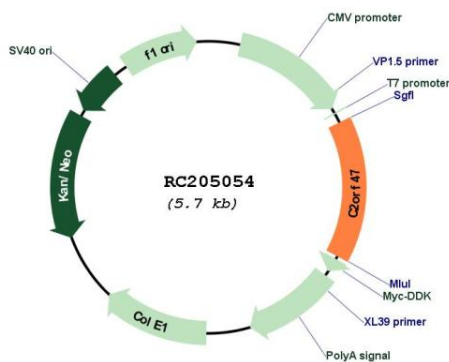
UniProt ID: [Q8WWC4](#)

Cytogenetics: 2q33.1

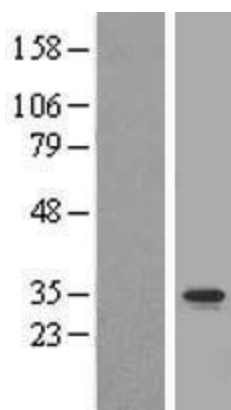
MW: 32.5 kDa

Gene Summary: Promotes sorting of SMDT1/EMRE in mitochondria by ensuring its maturation (PubMed:27642048). Interacts with the transit peptide region of SMDT1/EMRE precursor protein in the mitochondrial matrix, leading to protect it against protein degradation by YME1L1, thereby ensuring SMDT1/EMRE maturation by the mitochondrial processing peptidase (PMPCA and PMPCB) (PubMed:27642048).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC205054



Western blot validation of overexpression lysate (Cat# [LY411264]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205054 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).