

# Product datasheet for MR200382

### Smdt1 (NM\_026914) Mouse Tagged ORF Clone

### **Product data:**

#### OriGene Technologies, Inc.

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Product Type:	Expression Plasmids
Product Name:	Smdt1 (NM_026914) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smdt1
Synonyms:	1500032L24Rik; Emre
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR200382 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGCGTCCACGGCGGCTCGGCGGCTGGCCTGGGTTGCAGTTCGACCCGGGGCTCTCTGGAGCGGGCCGA GGGGGAGGAGGGGGGGGGG
	ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAG <b>GTTTAA</b>
Protein Sequence:	>MR200382 protein sequence <mark>Red=</mark> Cloning site Green=Tags(s)
	MASTAARRLAWVAVRPGALWSGPRGRRGGDVYTVPGSSGLSQVPSRSVIVTRSGAILPKPVKMSFGLLRV FSIVIPFLYVGTLISKNFAALLEEHDIFVPEDDDDDD
	TRTRPLEQKLISEEDLAANDILDYKDDDDKV
<b>Restriction Sites:</b>	Sgfl-Mlul



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#### **Cloning Scheme:**



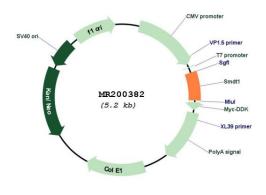
\* The last codon before the Stop codon of the ORF

ACCN:	NM_026914
ORF Size:	324 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. <u>More info</u>
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:	<ol> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
RefSeq:	<u>NM 026914.1, NP 081190.1</u>
RefSeq Size:	608 bp
RefSeq ORF:	324 bp

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	Smdt1 (NM_026914) Mouse Tagged ORF Clone – MR200382
Locus ID:	69029
UniProt ID:	<u>Q9DB10</u>
Cytogenetics:	15 E1
MW:	11.5 kDa
Gene Summary:	Essential regulatory subunit of the mitochondrial calcium uniporter complex (uniplex), a complex that mediates calcium uptake into mitochondria (PubMed:27001609). Required to bridge the calcium-sensing proteins MICU1 and MICU2 with the calcium-conducting subunit MCU. Plays a central role in regulating the uniplex complex response to intracellular calcium signaling. Acts by mediating activation of MCU and retention of MICU1 to the MCU pore, in order to ensure tight regulation of the uniplex complex and appropriate responses to intracellular calcium signaling calcium signaling (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR200382

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