

## Product datasheet for **MR203304**

### Sirt3 (NM\_001127351) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sirt3 (NM\_001127351) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Sirt3  
**Synonyms:** 2310003L23Rik; AI848213; Sir2I3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR203304 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGGGGCCGGCATCAGCACACCCAGTGCCATCCCGGACTTCAGATCCCCAGGGAGCGGCTCTACA  
GCAACCTTCAGCAGTATGACATCCCGTACCCTGAAGCCATCTTTGAACTGGCTTTTTCTTTCACAACCC  
CAAGCCCTTTTCATGTTGGCCAAGGAGCTGTACCCTGGGCACTACAGGCCAATGTCACACTACTTTC  
CTGAGGCTCCTCCACGACAAGGAGCTGCTTCTGCGGCTCTATACACAGAACATCGACGGGCTTGAGAGAG  
CATCTGGGATCCCTGCCTCAAAGCTGGTTGAAGCCACGGGACCTTTGTAAACAGTACATGCACGGTCTG  
TCGAAGGTCCTTCCAGGGGAAGACATATGGGCTGATGTGATGGCGGACAGGGTGCCCGCTGCCCTGTC  
TGTAAGGCTTGTGAAACCCGACATTGTGTTCTTTGGGAGCAGCTGCCTGCAAGGTTCTACTCCATA  
TGGCTGACTTCGCTTTGGCAGATCTGCTACTCATTCTTGGGACCTCCCTGGAGGTGGAGCCTTTTGGCAG  
CTTGCTGAAGCAGTACAGAAATCAGTGCCCGGACTGCTCATCAATCGAGACTTGGTGGGGCCGTTTCGTT  
CTGAGTCTCGAAGGAAAGATGTGGTCCAGCTAGGGGATGTAGTTCATGGTGTGGAAGGCTGGTGGACC  
TCCTGGGTGGACACAAGAAGCTGCTGGATCTTATGCAGCGGGAACGTGGCAAGCTGGATGGACAGGACAG  
A

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR203304 protein sequence  
 Red=Cloning site Green=Tags(s)

MVGAGISTPSGIPDFRSPGSLYSNLQQYDIPYPEAIFELGFFFHNPKEFFMLAKELYPGHYRPNVTHYF  
 LRLLDKELLLRLYTQNIIDGLERASGIPASKLVEAHGTFVTATCTVCRRSFPGEDIWADVMADRVPRCPV  
 CTGVVVPDIVFFGEQLPARFLLHMADFALADLLILGTSLEVEPFASLSEAVQKSVPRLLINRDLVGPFFV  
 LSPRRKDVVQLGDVVHGVRLVDLLGWTQELLDLMQRERKLDGQDR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001127351

**ORF Size:** 774 bp

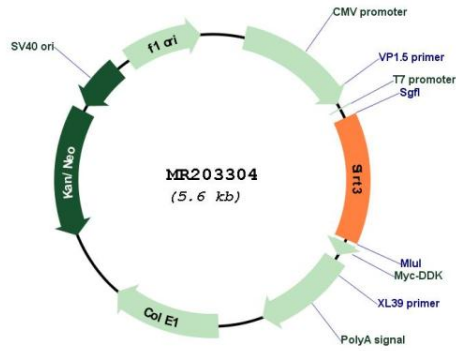
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001127351.1, NP_001120823.1</u>
<b>RefSeq Size:</b>	1439 bp
<b>RefSeq ORF:</b>	774 bp
<b>Locus ID:</b>	64384
<b>UniProt ID:</b>	<u>Q8R104</u>
<b>Cytogenetics:</b>	7 F4-F5
<b>MW:</b>	28.8 kDa
<b>Gene Summary:</b>	NAD-dependent protein deacetylase (PubMed:23835326, PubMed:17923681, PubMed:18794531, PubMed:21172655). Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues (PubMed:23835326, PubMed:17923681, PubMed:18794531, PubMed:21172655). Known targets include ACSS1, IDH, GDH, PDHA1, SOD2, LCAD, SDHA and the ATP synthase subunit ATP5PO (PubMed:16790548, PubMed:18794531, PubMed:21172655). Contributes to the regulation of the cellular energy metabolism (PubMed:23835326). Important for regulating tissue-specific ATP levels (PubMed:18794531, PubMed:24252090). In response to metabolic stress, deacetylates transcription factor FOXO3 and recruits FOXO3 and mitochondrial RNA polymerase POLRMT to mtDNA to promote mtDNA transcription (PubMed:23283301).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR203304