

## Product datasheet for **MR230324**

### Sars (NM\_001204979) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sars (NM_001204979) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sars
Synonyms:	Sars1; serRS; Strs
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230324 representing NM\_001204979  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCTGGACCTGGATTTGTTTCGGGTGGATAAAGGAGGGACCCAGCCCTCATTTCGAGAGACGCAGG  
 AGAAGCGCTTCAAGGACCCGGGCTGGTGGACCAGCTGGTAAAGCAGACAGTGAGTGGCGACGATGCAG  
 ATTTCCGGCAGACAACCTGAACAAGCTGAAGAATTTATGCAGCAAACTATTGGGAGAAAAAAGAAAA  
 AAGGAAGCAGTGGGAGACGACGAGTCCGTCAGAGAACGTGCTGAATTCGATGACCTCACTGCAGACG  
 CGCTAGCTGCCCTGAAAGTCTCACAGATTAAGAAAGTCCGACTCCTCATTGATGAAGCCATCCAGAAGTG  
 TGATGGGAGCGGGTAAAGCTGGAAGCAGAGCGATTTGAGAACCTCCGCGAGATTGGGAACCTTCTGCAC  
 CCCTCTGTGCCATTAGTAATGATGAGGACGCAGACAACAAGTAGAACGATTTGGGGAGATTGTACAG  
 TCAGGAAGAAGTATCCCATGTGGACCTGGTGGTATGGTAGATGGCTTTGAAGGCGAAAAGGGAGCCGT  
 GGTGGCTGGTAGTCGGGGTACTTCTGAAGGGCCCTGGTGTCTCGGAGCAGCGCTTATCCAATAT  
 GCACTGCTACCTTGGGAGTCGGGGCTACACTCCAATCTACACCCCTTCTTCATGAGGAAAGAGGTCA  
 TGCAGGAAGTGGCCAGCTCAGCCAGTTTATGTAAGAATTTATAAGGTGATTGGCAAAGGCAGGAAAA  
 GTCAGATGACAACTCCTATGACGAGAAACTTGTGATTGCCACCTCAGAGCAGCCCATCGCGGCTCTGCAC  
 CGGGACGAGTGGCTGCGGCCAGAGGATCTGCCATCAAGTACGCTGGCCTCTCCACCTGCTTTCGTCAGG  
 AAGTGGGCTCGCATGGCCGTGACACCCGTGGTATCTTCCGAGTCCATCAGTTTGAGAAGATTGAGCAGTT  
 TGTGTACTCATCGCCCCATGACAATAAGTCGTGGGAGATGTTTGTGATGAGATGATCGCCACCCGAGAAGAA  
 TTCTACCAAGTCTTTGGGGATCCCTTACCACATTTGAATATTGTCTCAGGCTCCTGAATACGCTGCCA  
 GTAAGAAGCTCGACCTGGAGGCCTGGTCCCAGGCTCGGGTGCCTCCGTGAGTTGGTGTCTGTCTTAA  
 TTGCACGGATTACCAAGCTCGCCGCTGAGAATCCGATATGGGCAGACCAAGAAGATGATGGACAAGGTG  
 GAGTTTGTCCATATGCTTAATGCTACAATGTGTGCTACCACCCGACCATCTGCGCCATCTGGAGAAGT  
 ACCAGGCAGAGAAGGCATCGCTGTGCCAGAGAAGTTGAGGGAGTTTCATGCCGCCAGGGCTCCAAGAGCT  
 GATCCCGTTTGTGAAGCTGCACCCATTGACCAGGAGCCATCTAAGAAGCAGAAGAAGCAACATGAAGGC  
 AGCAAAAAGAAAGCGAAAGAGGTCCCTGGAGAACCAGCTGCAGAGCATGGAGTCACTGAGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230324 representing NM\_001204979  
 Red=Cloning site Green=Tags(s)

MVLDLDFRVKGGDPALIRETQEKRFKDPGLVDQLVKADSEWRRRCFRADNLNKLNLCSKTIGEKMKK  
 KEAVGDDESVPENVLNFDDLADALAALKVSIKKVRLIDEAIIQKCDGERVKLEAERFENLREIGNLLH  
 PSVPI SNDEDADNKVERIWDCTVRKKYSHVDLVMMVDGFEGEKGAVVAGSRGYFLKGPLVFLEQALIQY  
 ALRTLGSRGYTPITYPPFMRKEVMQEVQLSQFDEELYKVIKKGSEKSDDNSYDEKYL IATSEQPIAALH  
 RDEWLRPEDLPICYAGLSTCFRQEVGSHGRDRGIFRVHQFEKIEQFVYSSPHDNKSWEMFDEMIATAEE  
 FYQSLGIPYHIVNIVSGLNHAASKKLDLEAWFPGSGAFRELVSCSNCTDYQARRLRIRYQTKKMMDKV  
 EFVHMLNATMCATTRTICAI LENYQAEKGI AVPEKLREFMPPGLQELIPFVKPAPIDQEPSKKQKKQHEG  
 SKKKAKEVPLENQLQSMEVTEA

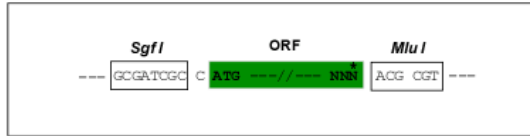
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

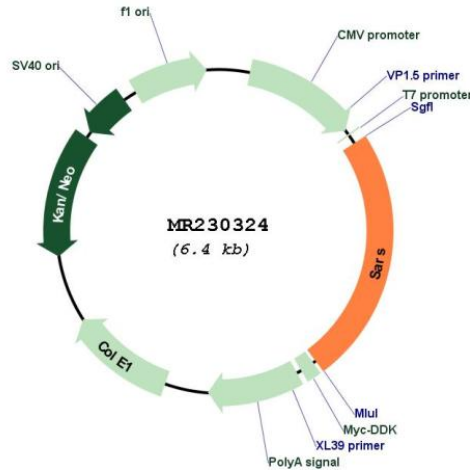
Cloning Scheme:

Cloning sites used for ORF Shutting:



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

Plasmid Map:



ACCN: NM\_001204979

ORF Size: 1536 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>	<a href="#">NM_001204979.1</a> , <a href="#">NP_001191908.1</a>
<b>RefSeq Size:</b>	3632 bp
<b>RefSeq ORF:</b>	1539 bp
<b>Locus ID:</b>	20226
<b>UniProt ID:</b>	<a href="#">P26638</a>
<b>Cytogenetics:</b>	3 47.08 cM
<b>MW:</b>	58.8 kDa
<b>Gene Summary:</b>	Catalyzes the attachment of serine to tRNA(Ser) in a two-step reaction: serine is first activated by ATP to form Ser-AMP and then transferred to the acceptor end of tRNA(Ser). Is probably also able to aminoacylate tRNA(Sec) with serine, to form the misacylated tRNA L-seryl-tRNA(Sec), which will be further converted into selenocysteinyl-tRNA(Sec). In the nucleus, binds to the VEGFA core promoter and prevents MYC binding and transcriptional activation by MYC. Recruits SIRT2 to the VEGFA promoter, promoting deacetylation of histone H4 at 'Lys-16' (H4K16). Thereby, inhibits the production of VEGFA and sprouting angiogenesis mediated by VEGFA.[UniProtKB/Swiss-Prot Function]