

## Product datasheet for MC226095

### Rangrf (NM\_001285442) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rangrf (NM_001285442) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rangrf
Synonyms:	2400006H24Rik; Mog1; Rangnrf
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC226095 representing NM_001285442 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCCCAACAGAACTGTCCACTGTTTCGGAGGCGCCTTCTCCGCCATCCTCCCTACAGGGGCCATTG  
ATGTGAGTGACCTCCGACCGGTGCCAGACAACCAAGAAGTTTTCTGCCATCCTGTGACCGACAGAGTCT  
GATCATAGAACTTCTGGAGCTGCAGGCCACGTGCAGGGCGAAGCGGCTGCGCGGTACCATTTTGAGGAC  
GTTGGCCGGGTGCAGGGGCTAGGGCTGTGCACGTGCTATCTGTGCAGCCTCTCTGTTGGAGAATTAT  
CCCTGAGAGGCTGCTGTGAGGATGCCTGGTCCCTTTCTGGCAAGCAGCAGGTAGCAAAGGATGTCACACT  
GCATCAGGCCTTGCTGCGGCTGCCCAAGTATCAGACTGATCTTTTGCTCACCTTCAATCAGCCCCCGTGT  
CACAGCAGGTCTCTTGGCCCTGAAAATCTGTCTATGTCCACCTTGAGCCTGAGTAACTTTGAACAGCTGG  
TAACTAGTTTGACTCTTCATGATCCCAACCTCTTTGGTCCCCAGTAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001285442
Insert Size:	537 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).


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<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001285442.1</u> , <u>NP_001272371.1</u>
<b>RefSeq Size:</b>	824 bp
<b>RefSeq ORF:</b>	537 bp
<b>Locus ID:</b>	57785
<b>Cytogenetics:</b>	11 B3
<b>Gene Summary:</b>	<p>May regulate the intracellular trafficking of RAN (PubMed:10811801, PubMed:11733047). Promotes guanine nucleotide release from RAN and inhibits binding of new GTP by preventing the binding of the RAN guanine nucleotide exchange factor RCC1 (PubMed:10811801, PubMed:11733047). Regulates the levels of GTP-bound RAN in the nucleus, and thereby plays a role in the regulation of RAN-dependent mitotic spindle dynamics (By similarity). Enhances the expression of SCN5A at the cell membrane in cardiomyocytes (PubMed:18184654, PubMed:23420830).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (3) differs in the 5' UTR and coding sequence and uses an alternate in-frame splice junction at the 3' end of an exon compared to variant 1. The resulting isoform (3) has a shorter and distinct N-terminus and lacks an alternate internal segment compared to isoform 1.</p>