

Product datasheet for MC207680

Scnm1 (NM_027013) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Scnm1 (NM_027013) Mouse Untagged Clone

Tag: Tag Free Symbol: Scnm1

Synonyms:3110001I17Rik; Scnm1-psVector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF: >MC207680 representing NM_027013

561 bp

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGTCTTTTAAGAGGGAAGGGGACGACTGGAGTCAACTCAATGTGCTCAAAAAAACGGAGAGTTGGGGACC TGCTGGCTAGTTACATCCCTGAGGACGACGCACTGATGCTGCGGGATGGACGCTTTGCTTGTCCCATCTG CCCCCATCGACCAGTACTAGACACGCTGGCCATGTTGACAGCCCACCGTGCAGGCAAGAAGCATTTGTCC AGTCTGAAGCTTTTCTATGGCAAAAAAGCAAAACAGGCAAGGGAACAGAGCAAAATCCAAGACAGCAGAACG AATTGAAGACAGAAAGCAAAACTGAGGCTCCTTTTGCTAACCCAGACTCGAATCATCACCCAGAATGCTCT ACACAGAGCTCCCACTATAACAGTTGCTGCCGGAGGAAGCACAGACCAGAAGCCCCTGCTCCCTCTGTC TCCAGTCCTCCTTTTGCCAACTGCAGAGTCAAACGAGACCCAAACGATGCCTA GGGAGAGATCAGTAAGGAACCTGAGCCTA GGGAGAGATCAGTAAGGAACCTGAGCCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul ACCN: NM_027013

Insert Size:

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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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: <u>NM 027013.2</u>, <u>NP 081289.2</u>

RefSeq Size: 888 bp
RefSeq ORF: 561 bp
Locus ID: 69269
UniProt ID: Q8K136
Cytogenetics: 3 40.74 cM

Gene Summary:

Mutations in the voltage-gated sodium channel gene Scn8a lead to neurological problems in mice. For one particular mutation, Scn8amedJ, mice live to adulthood but have tremors and muscle weakness, among other problems, in all strains except those derived from C57BL6 mice. In these strains, the product of the Scnm1 gene (229 aa) partially overcomes the effects of the Scn8amedJ mutation. However, in C57BL6-derived mice, a one nt change in the penultimate exon creates a premature stop codon, truncating the Scnm1 protein at 186 aa. This truncated protein lacks the ability to overcome the effects of the Scn8amedJ mutation, and these mice suffer paralysis and juvenile death. [provided by RefSeq, Jul 2009] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). The C-terminus of this isoform is truncated compared to that of the same variant in mouse strains not derived from C57BL6. This truncated isoform is not able to counteract the deleterious effects of the Scn8amedJ mutation whereas the longer isoform found in non-C57BL6 strains can partially overcome these effects.