

Product datasheet for **RN210840**

Sarm1 (NM_001105817) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sarm1 (NM_001105817) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Sarm1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN210840 representing NM_001105817
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTCTGACGCTGCTCTTCTCCGCTACAACTGTGCCGTTCTTCATCATGTGACGCCACGGCCGG
 GCGCCGATCGGCTGACAGTACCGGGACCGATCGGAGTGGCGGCACCAGCCATGGTGGCTGCGGGCGG
 TCGCGGGTCTCGCAAGTGTCCGCCGGGTGGGACCGAGGTGCAAGGCGCGCTGGAGCGTTCGCTGCCG
 GAGCTGCAGCAGGCGCTGTCCGAGCTGAAACAGGCAAGCGCGGCAAGCGGTGGGCGGGGCTCGCCG
 AGGTCTTCCAGCTGGTAGAGGAAGCCTGGCTGCTGCCGGCGTGGGCCGAGGTGGCCAAAGTTTGTG
 CGATGCTATACGCTGGACGGTGGCCTCGACTTGTGTTGCGGCTGTTTACGGCACCGGAGCTAGAGACC
 CGCGTGCAGGCCGCGCTTGTGGAGCAGATCCTGGTGGCTGAGAACCAGGACCGGTAGCGGCATCG
 GCCTAGGCGTGATCTTGAACCTGTGAAGGAACCGGAGCCTGTGGAGCTGGCACGGAGCGTGGCGGCAT
 CTTGGAGCACATGTTCAAGCACTCGGAGGAGACTGCCAGCGGCTGGTGGCGGCCGAGGCTCGACGCG
 GTGCTGTATTGGTGCCGCGCACAGACCGAGCCTACTGCGCCACTGCGCGCTGGCGCTGGCAAACCTGCG
 CGCTGCACGGGGCCAGACTGTGCAGCGGTGCATGGTGGAGAAGCGCGCCGCGAGTGGCTCTTCCCGCT
 CGCTTTCTCAAAGAGGACGAGTTGCTGCGGCTGCATGCTTGCCTGGCGGTGGCCGTGTTGGCTACCAAC
 AAGGAGGTAGAACCGGAGGTGAGCACTCAGGCACGTTGGCGCTCGTCGACCGCTGGTGGCATCGCTGG
 ATCCTGGCCGCTTCGCTCGTTGCCTGGTGGATGCCAGTGACACAAGCCAGGGTCTGGACAGACGACCT
 GCAGAGCCTGGTGTGTTGCTCGATTGTCGCGTTTGGAGGCTCAGTGCATAGGGGCTTTCTACCTGTGC
 GCCGAGGCTGCCATCAAAGCCTACAGGGAAAGACCAAGGTATTCAGCGACATCGGCGCCATCCAGAGCC
 TGAACGCTGGTTTCTACTCCAAAATGGCACCACTCGACGCTGGCCAAAGCGCGCTGCGCCATT
 GGGCGAGGAGGTGCCAAGGCGCATCCTACCTGGTGGCCAGCTGGAAGGAGGCTGAGGTCCAGACCTGG
 CTGCAGCAGATCGGCTTCTCCAGTACTGCGAGAATTTTCGGATCAGCAGGTAGATGGTATTTGCTTC
 TACGACTCACAGATGAAGAACTCCAGACAGACCTAGGCATGAAATCAAGCATCACCCGAAGAGTTCTT
 TAGGGAGCTCACGGAGCTCAAGACCTTCGCCAGCTATGCTACTTGCACCGCAGCAACCTAGCAGACTGG
 CTGGGCAGCCTGGATCCTCGTTCCGCCAGTACACCTATGGCCTGGTCACTGCGGCTGGACCGCTCCC
 TGCTGCACCGGTGTGAGCAGCAGCTCCTGGAGACTGTGGCATCCGCTGGGGTGCATCGCACGG
 CATCCTCTGTCAGCCAGAGAAATGCTACATTCCTCGCTGCCCTGTACCGGAGGCAAGCCAGTGGAGAC
 ACCCCAGATGTCTTTATCAGTACCGCAGGAACCTCGGGTCCCAGCTGGCCAGCCTCCTGAAGTGCACC
 TGCAAGTGCATGGCTTCAAGTGTCTTCATCGATGTGGAGAAGCTGGAGGCCGCAAATTCAGGACAAAGCT
 CATCCAGAGTGCATGGCGGCTCGAAATTTTGTGCTGGTGTCTGCGGGAGCGCTGGATAAGTGCATG
 CAGGACCATGAATGCAAGGACTGGGTGCACAAGGAGATCGTACTGCCTTAAGCTGTAGCAAGAATTG
 TGCCCATCATTGATGGCTTTGAGTGGCCTGAGCCTCAGGCACTGCCTGAGGATATGCAGGCTGTACTCAC
 CTTCAACGGCATCAAATGGTCTCATGAGTACCAGGAGGCCACCATCGAGAAAATCATCCGCTTCTACAG
 GGTGCGCCCTCTCAGGACTCCTCTGCCGCTCTGACACCAGTTTGGAGGGAGCTACATCAATGGGTCTGC
CTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul

ACCN: NM_001105817

Insert Size: 2175 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).

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 style="list-style-type: none">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_001105817.1, NP_001099287.1</u>
RefSeq Size:	4039 bp
RefSeq ORF:	2175 bp
Locus ID:	287545
UniProt ID:	<u>D3ZUM2</u>
Cytogenetics:	10q25
Gene Summary:	NAD(+) hydrolase, which plays a key role in axonal degeneration following injury by regulating NAD(+) metabolism. Acts as a negative regulator of MYD88- and TRIF-dependent toll-like receptor signaling pathway by promoting Wallerian degeneration, an injury-induced form of programmed subcellular death which involves degeneration of an axon distal to the injury site. Wallerian degeneration is triggered by NAD(+) depletion: in response to injury, SARM1 is activated and catalyzes cleavage of NAD(+) into ADP-D-ribose (ADPR), cyclic ADPR (cADPR) and nicotinamide; NAD(+) cleavage promoting cytoskeletal degradation and axon destruction. Also able to hydrolyze NADP(+), but not other NAD(+)-related molecules. Can activate neuronal cell death in response to stress. Regulates dendritic arborization through the MAPK4-JNK pathway. Involved in innate immune response: inhibits both TICAM1/TRIF- and MYD88-dependent activation of JUN/AP-1, TRIF-dependent activation of NF-kappa-B and IRF3, and the phosphorylation of MAPK14/p38.[UniProtKB/Swiss-Prot Function]