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## Product datasheet for RR210840

## Sarm1 (NM_001105817) Rat Tagged ORF Clone

## Product data:

Product Type:
Product Name:

## Tag:

Symbol:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

Restriction Sites:
Cloning Scheme:

## Expression Plasmids

Sarm1 (NM_001105817) Rat Tagged ORF Clone
Myc-DDK
Sarm1
Neomycin
pCMV6-Entry (PS100001)
Kanamycin ( $25 \mathrm{ug} / \mathrm{mL}$ )
Sgfl-Mlul

ACCN:
NM_001105817
ORF Size:
2172 bp


OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

## 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). |
| Reconstitution Method: | 1. Centrifuge at $5,000 \mathrm{xg}$ for 5 min . <br> 2. Carefully open the tube and add 100 ul of sterile water to dissolve the DNA. <br> 3. Close the tube and incubate for 10 minutes at room temperature. <br> 4. Briefly vortex the tube and then do a quick spin (less than 5000 xg ) to concentrate the liquid at the bottom. <br> 5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$. |
| RefSeq: | NM 001105817.1 NP 001099287.1 |
| RefSeq Size: | 4039 bp |
| RefSeq ORF: | 2175 bp |
| Locus ID: | 287545 |
| UniProt ID: | D3ZUM2 |
| Cytogenetics: | 10q25 |
| MW: | 79.7 kDa |
| 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 $\operatorname{NAD}(+)$ depletion: in response to injury, SARM1 is activated and catalyzes cleavage of NAD(+) into ADP-D-ribose (ADPR), cyclic ADPR (cADPR) and nicotinamide; $\operatorname{NAD}(+)$ 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 MYD88dependent activation of JUN/AP-1, TRIF-dependent activation of NF-kappa-B and IRF3, and the phosphorylation of MAPK14/p38.[UniProtKB/Swiss-Prot Function] |

## Product images:



