

Product datasheet for **RC219824**

SMPD4 (NM_017951) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | SMPD4 (NM_017951) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | SMPD4 |
| Synonyms: | NEDMABA; NEDMEBA; NET13; NSMASE-3; NSMASE3; SKNY |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC219824 representing NM_017951
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACGACTTTCGGCGCGTGGCGGAATGGCGCTTCCATCTCTGAGCGAGCGACGCTATGGATCCCAC
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Protein Sequence: >RC219824 representing NM_017951
Red=Cloning site Green=Tags(s)

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MTTFGAVAEWRLPSLRRATLWIPQWFAKKAIFNSPLEAAMAFPHLQQPSFLLASLKADSINKPFAQQCQD
LVKVIEDFPAKELHTIFPWLVESIFGSLDGLVGVWNLRLQGRVNPVEYSIVMEFLDPGGPMMKLVYKLQ
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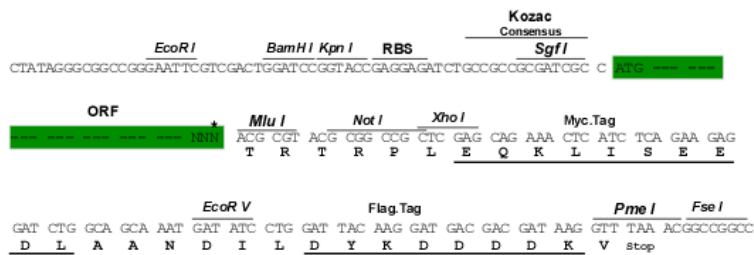
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8009_f11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



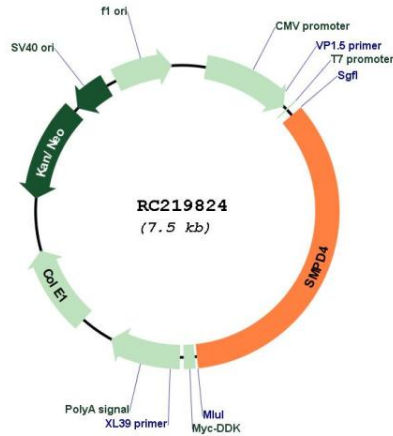
* The last codon before the Stop codon of the ORF

| | |
|-------------------------------|--|
| ACCN: | NM_017951 |
| ORF Size: | 2598 bp |
| OTI Disclaimer: | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p> |
| 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: | <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: | NM_017951.4 , NP_060421.2 |
| RefSeq Size: | 4269 bp |
| RefSeq ORF: | 2484 bp |
| Locus ID: | 55627 |
| UniProt ID: | Q9NXE4 |
| Cytogenetics: | 2q21.1 |
| Protein Families: | Transmembrane |
| Protein Pathways: | Metabolic pathways, Sphingolipid metabolism |
| MW: | 97.6 kDa |

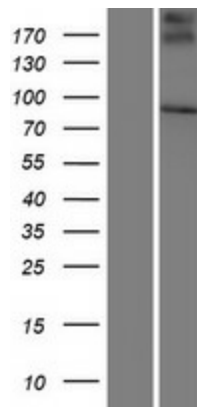
Gene Summary:

The protein encoded by this gene is a sphingomyelinase that catalyzes the hydrolysis of membrane sphingomyelin to form phosphorylcholine and ceramide. This gene is activated by DNA damage, cellular stress, and tumor necrosis factor, but it is downregulated by wild-type p53. The encoded protein localizes to the endoplasmic reticulum and Golgi network. [provided by RefSeq, Mar 2017]

Product images:



Circular map for RC219824



Western blot validation of overexpression lysate (Cat# [LY413435]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219824 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).