

Product datasheet for **RC214161**

SMPD4 (NM_017751) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMPD4 (NM_017751) 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:

>RC214161 representing NM_017751
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACGACTTTCGGCGCGTGGCGGAATGGCGGCTTCCATCTCTGAGCGAGCGACGCTATGGATCCCAC
 AGTGGTTTGCTAAGAAGGCCATTTTCAACTCTCCACTGGAGGCTGCTATGGCGTTCCCTCACCTGCAGCA
 GCCCAGCTTTCTACTGGCTAGCCTGAAAGCTGACTCTATAAATAAGCCCTTTCACAGCAGTGCACAGC
 TTGGTTAAAGTCAATTGAGGACTTTCAGCAAAGGAGCTGCACACCATCTCCCATGGCTGGTAGAAAGCA
 TTTTGGCAGCCTAGATGGTGTCTCGTTGGCTGGAACCTCCGCTGCTTACAGGGGCGCGTGAATCCTGT
 GGAGTACAGCATCGTATGGAATTTCTCGACCCTGGTGGCCCAATGATGAAGTTGGTTTATAAGCTTCAA
 GCTGAAGACTATAAGTTCGACTTTCCTGTCTCCTACTTGCCTGGTCTGTGAAGGCGTCCATCCAGGAGT
 GCATCCTCCCTGACAGTCTCTGTACCACAACAAGGTCCAGTTCACCCCTACTGGGGGCTTGGTCTGAA
 CTTGGCCCTGAATCCGTTTCGAGTATTACATATTCTTTGCCTTGAGCCTCATCACTCAGAAGCCACTT
 CCTGTGTCCCTCCACGTCCGTACTTTCAGACTGTGCCTATTTTCATCCTGGTGGACAGGTACCTGTCAATGGT
 TCCTGCCACCGAAGGCAGTGTGCCCCACCCTCCTCCAGCCAGGGGGGACAGCCCTCACCCACC
 TCCCAGGACACCAGCCATACCCTTTCCTATGGCCTCCACCACACTAGCCTCCTAAAGCGACACATC
 TCTCATCAGACGTCTGTGAATGCAGACCCCGCCTCCCACGAGATCTGGAGGTGAGAACTCTGCTCCAGG
 TTTTGTGAAATGTGGCTTTCATCACTATTCCTTGGAGATGTATCAAAAAATGCAGTCCCCTCATGCCAA
 GGAGTCGTTACGCCTACTGAGGAGCATGTGTTGGTGGTGGCGCTGCTGCTGAAGCACCTGCACGCCCTT
 GCCAACAGCCTGAAGCCAGAGCAGGCCCTCACCCCTCCGCCCACTCCACGCCACCAGCCCTGGAGGAGT
 TCAAACGGGCTGCTGTCCCGAGTTCGTCAGAGAACTCTACCTCTTTTGCAGCATTGCTTTGGCCA
 CTGGCCCTGGACGCATCGTTTCAGAGCTGCTGGAGATGTGGCTGAGTACCTGCAGCCGTGGCGGTAC
 GCGCCTGACAAGCAGGCTCCGGGCGAGCCTCCAGCCCGGTGTGTGTCGGAGAATGGCACCCCTTGT
 TCCAGGAGAACCTGCTGATGTACACCAAGTTGTTTGTGGGCTTTCTGAACCGCGCTCCGCACAGACCT
 GGTGAGCCCAAGCAGCGCTCATGGTGTTCGAGTGGCCAAAGTCTTGGCCAGCCCACTGGCTGAG
 ATGATTGAGAAAGGTGAGCAGCTATTCCTGGAGCCAGAGTGGTTCATCCCCACCAGCCAGCAGGACTCT
 TCACGGCCCCACATTCACTGGGAGCTTCTGTACCCCTGGCCACCAGCGGTCACTGATGCCTCCTTCAA
 GGTGAAGAGCCAGTCTACAGCCTGGAGGGCCAGGACTGCAAGTACACCCCGATGTTTGGGCCGAGGCC
 CGCACCCCTGGTCTGCGCTCGCTCAGCTCATCACACAGGCCAAACACACAGCCAAGTCCATCTCCGACC
 AGTGTGCGGAGAGCCCGCTGGCCACTCCTTCTCATGGCTGGGCTTTCAGCTCCATGGACACCAATGG
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 AAGGCCCTGGAGTACCTGCGCCAGATATTCGGCTCAGCGAAGCGCAGCTCAGGCAGTTCACACTCGCT
 TGGGCACCACCAGGATGAGAAATGGAAAAAGCAACTCCCCGACTGCATCGTGGGTGAGGACGGACTCAT
 CCTTACGCCCCTGGGGCGGTACCAGATCATCAATGGGCTGCGAAGGTTTGAATTTGAGTACCAGGGGAC
 CCGGAGCTGCAGCCATCCGGAGCTATGAGATCGCCAGCTTGGTCCGACACTTTTAGGCTGTCTGTCTG
 CCATCAACCACAGATTTGCAGGACAGATGGCGGCTCTGTGTTCCCGGATGACTTCTCGCAGCTTCTG
 TCGTACCACCTCACAGAACCTGGGCTGGCCAGCAGGCACCTGCTGAGCCCTGTGGGGCGGAGGACGGTG
 GCCGGCCACACCCGCGGCCAGGCTCAGCCTGCGCTTCTGGGAGTTACCGGACGCTGGTCTCGCTGC
 TGTGGCTTCTTCTGTGGCTCTCTGTTCTGCGTGGGCCCTCCATGCAGCTGCTGCTCACCCCTGG
 CTATGCTCTACGCCTTGCATGACACTGCTGACCGAGCGGGGAAGCTGCACCAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214161 representing NM_017751
Red=Cloning site Green=Tags(s)

MTTFGAVAEWRLPSLRRATLWIPQWFAKKAI FNSPLEAAMAFPHLQQPSFLLASLKADSINKPFAQQCQD
LVKVIEDFPAKELHTIFPWLVESIFGSLDGVLVGWNL RCLQGRVNPVEYSIVMEFLDPGGPMMKL VYK LQ
AEDYKFD FPVSYLPGPVKASIQECILPDSPLYHNKVQFTPTGGLNLALNPF EYI FFFALSLITQKPL
PVSLHVRTSDCAYFILVDRYLSWFLPTEGSVPPPLSSSPGGTSPSPPPRTPAIPFASYGLHHTSLLKRHI
SHQTSVNADPASHEIWRSETLLQVFVEMWLHHYSLEMYQKMQSPHAKESFTPTEEHVLVVRLLLKHLHAF
ANSLKPEQASPSAHSHATSPLEEFKRAAVPRFVQKLYLFLQHCFGHWPLDASFRAVLEMWLSYLQPWRY
APDKQAPGSDSQPRCVSEKWAPFVQENLLMYTKL FVGFLNRALRTDLVSPKHALMVFRVAKVFAQPNLAE
MIQKGEQLFLEPELVIPHRQHRLFTAPTFTGSFLSPWPPAVTDASFVKVSHVYSLEGQDCKYTPMGPEA
RTLVLRLAQLITQAKHTAKSISDQCAESPAGHSFLSWLGFSSMDTNGSYTANDLDEMGOQDSVRKTDEYLE
KALEYLRQIFRLSEAQLRQFTLALGTTQDENGKKQLPDCIVGEDGLIL TPLGRYQI INGLRRFEIEYQGD
PELQPIRSYEIASLVRTLFRLLSSAINHRFAGQMAALCSRDDFLGSFCRYHLTEPLASRHLLSPVGRRQV
AGHTRGPRLSLRFLGSYRTLVSLLLAFVVASLFCVGPLPCTLLL TLGYVLYASAMTLLTERGK LHQP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:


ACCN: NM_017751

ORF Size: 2511 bp

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 5,000xg 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_017751.4](#), [NP_060221.2](#)

RefSeq Size: 3833 bp

RefSeq ORF: 2514 bp

Locus ID: 55627

UniProt ID: [Q9NXE4](#)

Cytogenetics: 2q21.1

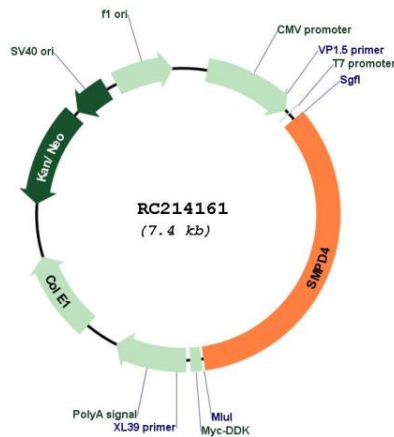
Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

MW: 94.6 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 RC214161