

Product datasheet for **RC230482**

SMPD4 (NM_001171083) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMPD4 (NM_001171083) 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:

>RC230482 representing NM_001171083
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACGACTTTCGGCGCCGTGGCGGAATGGCGGCTTCCATCTCTGAGCGAGCGACGCTATGGATCCCAC
 AGTGGTTTGTAAAGAAGGCCATTTTCAACTCTCCACTGGAGGCTGCTATGGCGTTCCCTCACCTGCAGCA
 GCCCAGCTTTCTACTGGCTAGCCTGAAAGCTGACTCTATAAATAAGCCCTTTCACAGCAGTGCACAGAGC
 TTGGTTAAAGTCATTGAGGACTTTCAGCAAAGGGTCTGTGAAGGCGTCCATCCAGGAGTGCATCCTCC
 CTGACAGTCTCTGTACCACAACAAGGTCCAGTTCACCCCTACTGGGGCCTTGGTCTGAACTTGGCCCT
 GAATCCGTTCCGAGTATTACATATTTCTTCTTGCCTTGAGCCTCATCACTCAGAAGCCACTTCTGTGTCC
 CTCACAGTCCGTAATTCAGACTGTGCCTATTTTCATCTGGTGGACAGGTACCTGTCATGGTTCTGCCCA
 CCGAAGGCAGTGTGCCCCACCCTCTCCTCCAGCCAGGGGGACCAGCCCTCACCACCTCCCAGGAC
 ACCAGCCATACCTTTGCTTCTATGGCCTCCACCACACTAGCCTCCTAAAGCGACACATCTCTCATCAG
 ACGTCTGTGAATGCAGACCCCGCTCCCAGGAGTCTGGAGGTCAGAAACTCTGCTCCAGGTTTTTGTGG
 AAATGTGGCTTCACTACTATTCCTTGGAGATGTATCAAAAAATGCAGTCCCTCATGCAAGGAGTCCGTT
 CACGCCTACTGAGGAGCATGTGTTGGTGGTGGCGCTGCTGCTGAAGCACCTGCACGCCTTGGCAACAGC
 CTGAAGCCAGAGCAGGCCCTCACCTCCGCCACTCCCACGCCACCAGCCCTGGAGGAGTCAAACGGG
 CTGCTGTCCCGAGGTTCCGTCAGAGAACTCTACCTCTTCTTGCAGCATTGCTTTGGCCACTGGCCCT
 GGACGCATCGTTCAGAGTGTCTGGAGATGTGGCTGAGTACCTGCAGCCGTGGCGGTACGCGCCTGAC
 AAGCAGGCTCCGGCAGCGACTCCAGCCCGGTGTGTGTCGGAGAAATGGGCACCCTTTGTCCAGGAGA
 ACCTGTGATGTACACCAAGTTGTTTGGGGCTTCTGAACCGCGCTCCGCACAGACTGGTCCAGCCCA
 CAGCAGCGCTCATGGTGTCCGAGTGGCCAAAGTCTTTGCCAGCCCAACCTGGCTGAGATGATTCAG
 AAAGGTGAGCAGCTATTCTGGAGCCAGAGCTGGTCATCCCCACCGCCAGCACCAGCTTTCACGGCCC
 CCACATTCAGTGGGAGCTTCTGTACCCTGGCCACCAGCGGTCACTGATGCCTCCTTCAAGGTGAAGAG
 CCACGTCTACAGCCTGGAGGGCCAGGACTGCAAGTACACCCCGATGTTTGGGCCCGAGGCCCGCACCTG
 GTCCTGCGCCTCGCTCAGCTCATCACACAGGCCAAACACACAGCCAAGTCCATCTCCGACCAGTGTGCGG
 AGAGCCCGGCTGGCCACTCCTTCTCTCATGGCTGGGCTTAGCTCCATGGACACCAATGGCTCCTACAC
 AGCCAACGACCTGGACGAGATGGGGCAAGACAGTGTCCGGAAGACAGATGAATACCTGGAGAAGGCCCTG
 GAGTACCTGCGCCAGATATTCGGCTCAGCGAAGCGCAGCTCAGGCAGTTCACACTCGCCTTGGGCACCA
 CCCAGGATGAGAATGGAAAAAGCAACTCCCCGACTGCATCGTGGGTGAGGACGGACTCATCCTTACGCC
 CCTGGGGCGGTACCAGATCATCAATGGGCTGCGAAGGTTTGAATGAGTACCAGGGGGACCCGGAGCTG
 CAGCCCATCCGGAGCTATGAGATCGCCAGCTTGGTCCGCACACTTTTAGGCTGTGCTGCCATCAACC
 ACAGATTTGCAGGACAGATGGCGGCTCTGTGTTCCCGGATGACTTCTCGGCAGCTTCTGTCGCTACCA
 CCTCACAGAACCTGGGCTGGCCAGCAGGCACCTGCTGAGCCCTGTGGGGCGGAGGCAGGTGGCCGGCCAC
 ACCCGCGGCCAGGCTCAGCCTGCGCTTCTGGGCAGTTACCGGACGCTGGTCTCGTGTGCTGGCCT
 TCTTCGTGGCCTCTGTCTGCGTGGGCCCTCCCATGCACGCTGCTCACCCTGGGCTATGTCCT
 CTACGCCTCTGCCATGACTGCTGACCGAGCGGGGAAGCTGCACCAGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC230482 representing NM_001171083
 Red=Cloning site Green=Tags(s)

MTTFGAVAEWRLPSLRRATLWIPQWFAKKAIFNSPLEAAMAFPHLQQPSFLLASLKADSINKPFAQQCQD
 LKVIEDFPAKGPVKASIQECILPDSPLYHNKVQFTPTGGLGLNLALNPFEYIYFFALSITQKPLPVS
 LHVRTSDCAYFILVDRYLSWFLPTEGSVPPPLSSSPGGTSPSPPPRTPAIPFASYGLHHTSLLKRHISHQ
 TSVNADPASHEIWRSETLLQVFVEMWLHHYSLEMYQKMQSPHAKESFTPTTEHVLVVRLLLKHLHAFANS
 LKPEQASPSAHSATSPLEEFKRAAVPRFVQKLYLFLQHCFGHWPLDASFRAVLEMWLSYLQPWRYAPD
 KQAPGSDSQPRCVSEKWAPFVQENLLMYTKL FVGFLNRALRTDLVSPKHALMVFRVAKVFAQPNLAEMIQ
 KGEQLFLEPELVIPHRQHRLFTAPTFTGSFLSPWPPAVTDASFVKVSHVYSLEGQDKYTPMFGPEARTL
 VLRLAQLITQAKHTAKSISDQCAESPAGHSFLSWLGFSSMDTNGSYTANDLDEMGQDSVRKTDEYLEKAL
 EYLRQIFRLSEAQLRQFTLALGTTQDENGKQLPDCIVGEDGLILTPLGRYQIINGLRRFEIEYQGPEL
 QPIRSYIEIASLVRTLFRLLSSAINHRFAGQMAALCSRDDFLGSFCRYHLTEPLASRHLLSPVGRRQVAGH
 TRGPRLSLRFLGSYRTLVSLLLAFVVASLFCVGPLPCTLLLLTLGYVLYASAMTLLTERGKHLQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001171083

ORF Size: 2292 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_001171083.2](#), [NP_001164554.1](#)

RefSeq Size: 3614 bp

RefSeq ORF: 2295 bp

Locus ID: 55627

UniProt ID: [Q9NXE4](#)

Cytogenetics: 2q21.1

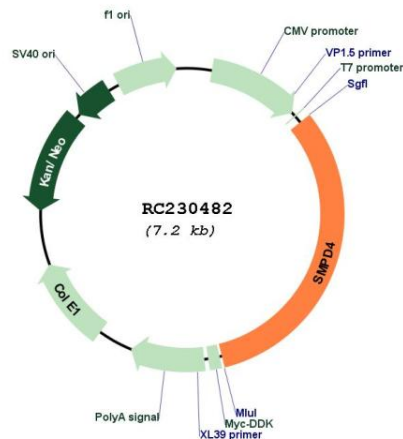
Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

MW: 86.2 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 RC230482