

Product datasheet for **RC200417**

nSMase (SMPD2) (NM_003080) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	nSMase (SMPD2) (NM_003080) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	nSMase
Synonyms:	ISC1; NSMASE; NSMASE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200417 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGCCCAACTTCTCCCTGCGACTGCGGATCTTCAACCTCAACTGCTGGGGCATTCCGTA
 ACTTGAGCAAGCACCAGGCGACCGCATGAGGCGCCTGGGAGACTTTCTGAACCAAGGAGAGCTTCGACCTGGCTTTGCT
 GGAGGAGGTGTGGAGTGAGCAGGACTTCCAGTACCTGAGACAGAAGCTGTCACCTACCTACCCAGCTGCA
 CACCATTCCGGAGCGGAATCATTGGCAGTGGCCTCTGTGTCTTCTCAAACATCCAATCCAGGAGCTTA
 CCCAGCACATCTACACTCTCAATGGCTACCCCTACATGATCCATCATGGTGACTGGTTCAGTGGGAAGGC
 TGTGGGGTCTGGTCTCCATCTAAGTGGCATGGTCTCAACGCCTATGTGACCCATCTCCATGCCGAA
 TACAATCGACAGAAGGACATCTACCTAGCACATCGTGTGGCCCAAGCTTGGGAATGGCCAGTTCATCC
 ACCACACATCCAAGAAGGCAGACGTGGTCTGTGTGTGGAGACCTCAACATGCACCCAGAAGACCTGGG
 CTGCTGCCTGCTGAAGGAGTGGACAGGGCTTCATGATGCCTATCTTGAACTCGGACTTCAAGGGCTCT
 GAGGAAGGCAACACAATGGTACCCAAGAAGCTGCTACGTACGCCAGCAGGAGCTGAAGCCATTTCCCTTTG
 GTGTCCGATTGACTACGTGCTTTACAAGGCAGTTTCTGGGTTTTACATCTCCTGTAAGAGTTTTGAAAC
 CACTACAGGCTTTGACCCCTCACAGTGGCAGCCCTCTCTGATCATGAAGCCCTGATGGCTACTCTGTTT
 GTGAGGCACAGCCCCCAGCAGAAACCCAGCTCTACCCACGGACCAGCAGAGAGGTGCGCGTTGATGT
 GTGTGCTAAAGGAGGCCTGGACGGAGCTGGGTCTGGGCATGGCTCAGGCTCGTGGTGGGCCACCTTCGC
 TAGCTATGTGATTGGCCTGGGGCTGCTTCTCCTGGCACTGCTGTGTGCTGCGGCTGGAGGAGGGCC
 GGGGAAGCTGCCATACTGCTCTGGACCCCAAGTGTAGGGCTGGTGTGTGGCAGGTGCATTCTACCTCT
 TCCACGTACAGGAGGTCAATGGCTTATATAGGGCCAGGCTGAGCTCCAGCATGTGCTAGGAAGGGCAAG
 GGAGGCCAGGATCTGGGCCAGAGCCTCAGCCAGCCCTACTCCTGGGGCAGCAGGAGGGGGACAGA
 AAGAACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200417 protein sequence
 Red=Cloning site Green=Tags(s)

MKPNFSLRLRIFNLNCWGIPLYLKHRAADRMRRLGDFLNQESFDLALLEEVWSEQDFQYLRQKLSPTYPAA
 HHFRSGIIGSGLCVFSKHPIQELTQHIYTLNGYPYMIHHGDWFSGKAVGLLVHL SGMVLNAYVTHLHAE
 YNRQKDIYLAHRVAQAWELAQFIHHTSKKADVLLCGDLNMHPEDLGCCLLKEWTGLHDAYLETRDFKGS
 EEGNTMVPKNCYVSQELKPFPGVIRIDYVLYKAVSGFYISCKSFETTTGFDPHSGTPLSDHEALMATLF
 VRHSPQQNPSSTHGAERSPLMCVLEAWTELGLGMAQARWWATFASYVIGLGLLLLALLCVLAAGGGA
 GEAAILLWTPSVGLVLWAGAFYLFHVQEVNGLYRAQAEHQHVLGRAREQDLGPEPQPALLLGQQEGDRT
 KEQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6669_a07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_003080

ORF Size: 1269 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_003080.3](#)

RefSeq Size: 1697 bp

RefSeq ORF: 1272 bp

Locus ID: 6610

UniProt ID: [O60906](#)

Cytogenetics: 6q21

Domains: Exo_endo_phos

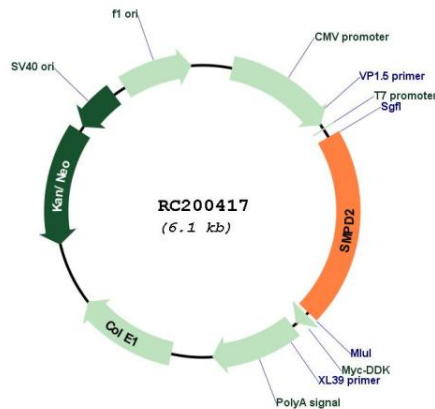
Protein Families: Transmembrane

Protein Pathways: Metabolic pathways, Sphingolipid metabolism

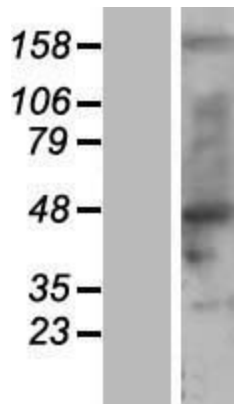
MW: 47.6 kDa

Gene Summary: This gene encodes a protein which was initially identified as a sphingomyelinase based on sequence similarity between bacterial sphingomyelinases and a yeast protein. Subsequent studies showed that its biological function is less likely to be as a sphingomyelinase and instead as a lysophospholipase. [provided by RefSeq, Oct 2009]

Product images:



Circular map for RC200417



Western blot validation of overexpression lysate (Cat# [LY418911]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200417 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).