

Product datasheet for **RC219758**

Acid sphingomyelinase (SMPD1) (NM_000543) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid sphingomyelinase (SMPD1) (NM_000543) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acid sphingomyelinase
Synonyms:	ASM; ASMASE; NPD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC219758 representing NM_000543
 Red=Cloning site Blue=ORF Green=Tags(s)

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 GCC**GCGATCGCC**

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 TGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >RC219758 representing NM_000543
Red=Cloning site Green=Tags(s)

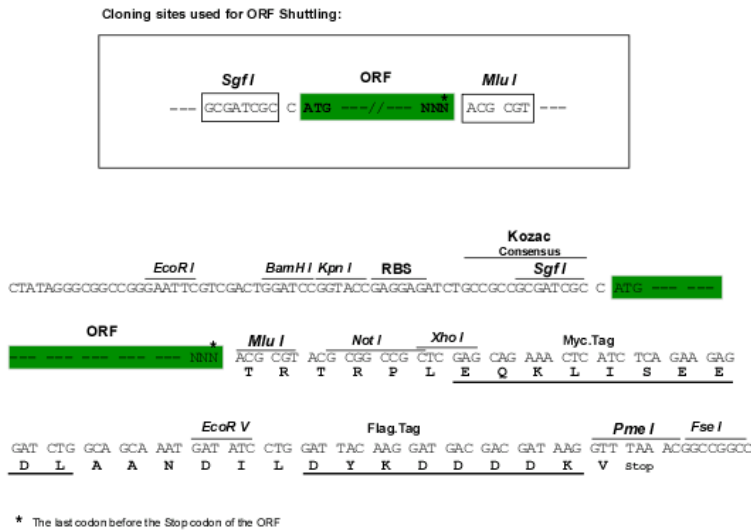
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C
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Chromatograms: https://cdn.origene.com/chromatograms/mg2661_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000543

ORF Size: 1893 bp

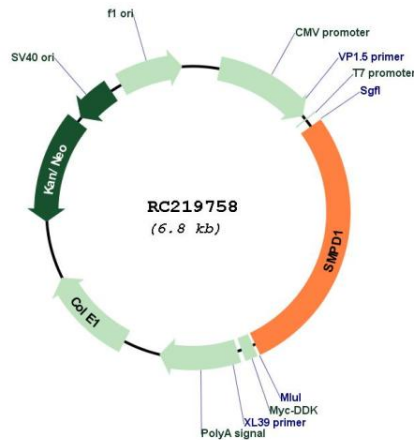
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

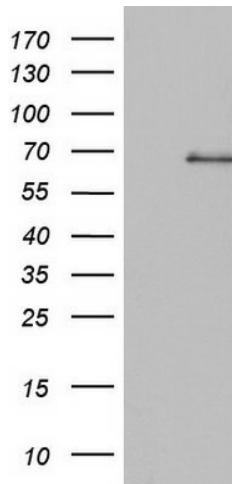
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000543.5
RefSeq Size:	2473 bp
RefSeq ORF:	1896 bp
Locus ID:	6609
UniProt ID:	P17405
Cytogenetics:	11p15.4
Domains:	Metallophos, SAPB
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Lysosome, Metabolic pathways, Sphingolipid metabolism
MW:	69.94 kDa
Gene Summary:	The protein encoded by this gene is a lysosomal acid sphingomyelinase that converts sphingomyelin to ceramide. The encoded protein also has phospholipase C activity. Defects in this gene are a cause of Niemann-Pick disease type A (NPA) and Niemann-Pick disease type B (NPB). Multiple transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2010]

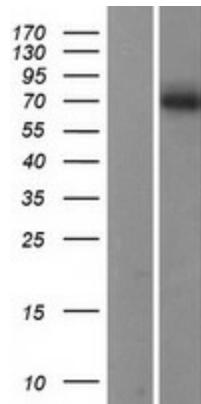
Product images:



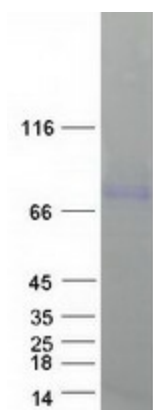
Circular map for RC219758



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SMPD1 (Cat# RC219758, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SMPD1 (Cat# [TA803659]). Positive lysates [LY400191] (100ug) and [LC400191] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400191]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219758 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SMPD1 protein (Cat# [TP319758]). The protein was produced from HEK293T cells transfected with SMPD1 cDNA clone (Cat# RC219758) using MegaTran 2.0 (Cat# [TT210002]).