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Product datasheet for SC119827

Acid sphingomyelinase (SMPD1) (NM_000543) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acid sphingomyelinase (SMPD1) (NM_000543) Human Untagged Clone
Tag:	Tag Free
Symbol:	Acid sphingomyelinase
Synonyms:	ASM; ASMASE; NPD
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC119827 sequence for NM_000543 edited (data generated by NextGen Sequencing)

ATGCCCCGCTACGGAGCGTCACTCCGCCAGAGCTGCCCCAGGTCCGGCCGGGAGCAGGGA
CAAGACGGGACCGCCGGAGCCCCCGGACTCCTTTGGATGGGCCTGGCGCTGGCGCTGGCG
CTGGCGCTGGCGCTGGCGCTGGCTCTGTCTGACTCTCGGGTTCTCTGGGCTCCGGCAGAG
GCTCACCCTCTTTCTCCCCAAGGCCATCCTGCCAGGTTACATCGCATAGTGCCCCGGCTC
CGAGATGTCTTTGGGTGGGGGAACCTCACCTGCCCAATCTGCAAAGGTCTATTCACCGCC
ATCAACCTCGGGCTGAAGAAGGAACCCAATGTGGCTCGCGTGGGCTCCGTGGCCATCAAG
CTGTGCAATCTGCTGAAGATAGCACCACCTGCCGTGTGCCAATCCATTGTCCACCTCTTT
GAGGATGACATGGTGGAGGTGTGGAGACGCTCAGTGCTGAGCCCATCTGAGGCCTGTGGC
CTGCTCCTGGGCTCCACCTGTGGGCACTGGGACATTTTCTCATCTTGGAACATCTCTTTG
CCTACTGTGCCGAAGCCGCCCCCCAAACCCCCTAGCCCCCCAGCCCCAGGTGCCCCTGTC
AGCCGCATCCTCTTCCTCACTGACCTGCACTGGGATCATGACTACCTGGAGGGCACGGAC
CCTGACTGTGCAGACCCACTGTGCTGCCGCCGGGGTTCTGGCCTGCCGCCCGCATCCCGG
CCAGGTGCCGGATACTGGGGCGAATACAGCAAGTGTGACCTGCCCCTGAGGACCCTGGAG
AGCCTGTTGAGTGGGCTGGGCCCAGCCGGCCCTTTTGATATGGTGTACTGGACAGGAGAC
ATCCCCGCACATGATGTCTGGCACCAGACTCGTCAGGACCAACTGCGGGCCCTGACCACC
GTCACAGCACTTGTGAGGAAGTTCCTGGGGCCAGTGCCAGTGTACCCTGCTGTGGGTAAC
CATGAAAGCACACCTGTCAATAGCTTCCCTCCCCCCTTCATTGAGGGCAACCACTCCTCC
CGCTGGCTCTATGAAGCGATGGCCAAGGCTTGGGAGCCCTGGCTGCCTGCCGAAGCCCTG
CGCACCCTCAGAATTGGGGGGTTCTATGCTCTTTCCCCATACCCCGGTCTCCGCCTCATC
TCTCTCAATATGAATTTTTGTTCCCGTGAGAACTTCTGGCTCTTGATCAACTCCACGGAT
CCCGCAGGACAGCTCCAGTGGCTGGTGGGGGAGCTTCAGGCTGCTGAGGATCGAGGAGAC
AAAGTGCATATAATTGGCCACATTCCCCCAGGGCACTGTCTGAAGAGCTGGAGCTGGAAT
TATTACCGAATTGTAGCCAGGTATGAGAACACCCTGGCTGCTCAGTTCTTTGGCCACACT
CATGTGGATGAATTTGAGGTCTTCTATGATGAAGAGACTCTGAGCCGGCCGCTGGCTGTA
GCCTTCCTGGCACCCAGTGCAACTACCTACATCGGCCTTAATCCTGGTTACCGTGTGTAC
CAAATAGATGGAAACTACTCCGGGAGCTCTCACGTGGTCCTGGACCATGAGACCTACATC
CTGAATCTGACCCAGGCAAACATACCGGGAGCCATACCGCACTGGCAGCTTCTCTACAGG
GCTCGAGAAACCTATGGGCTGCCCAACACACTGCCTACCGCCTGGCACAACCTGGTATAT
CGCATGCGGGGCGACATGCAACTTTTCCAGACCTTCTGGTTTCTCTACCATAAGGGCCAC
CCACCCTCGGAGCCCTGTGGCACGCCCTGCCGTCTGGCTACTCTTTGTGCCCAGCTCTCT
GCCCGTGCTGACAGCCCTGCTCTGTGCCGCCACCTGATGCCAGATGGGAGCCTCCCAGAG
GCCCAGAGCCTGTGGCCAAGGCCACTGTTTTGCTAG

Clone variation with respect to NM_000543.4
107 t=>c

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000543 unedited
GTTGACTATTTTGTAATACGACTTTACTATAGGGCGGCCGCGAATTCGCACGAGGGGACA
GAGAGAGGAAGAGGAAGGGGCGGAGCTGCTTTGCGGCCGGCCGCGGAGCAGTCAGCCGAC
TACAGAGAAGGGTAATCGGGTGTCCCCGGCGCCGCCCGGGGCCCTGAGGGCTGGCTAGGG
TCCAGGCCGGGGGGGACGGGACAGACGAACCAGCCCCGTGTAGGAAGCGCGACAATGCCC
CGCTACGGAGCGTCACTCCGCCAGAGCTGCCCCAGGTCCGGCCGGGAGCAGGGACAAGAC
GGGACCGCCGGAGCCCCCGGACTCCTTTGGATGGGCCTGGCGCTGGCGCTGGCGCTGGCG
CTGGCGCTGGCGCTGGCTCTGTCTGACTCTCGGGTTCTCTGGGCTCCGGCAGAGGCTCAC
CCTCTTTCTCCCCAAGGCCATCCTGCCAGGTTACATCGCATAGTGCCCCGGCTCCGAGAT
GTCTTTGGGTGGGGGAACCTCACCTGCCCAATCTGCAAAGGTCTATTCACCGCCATCAAC
CTCGGGCTGAAGAAGGAACCCAATGTGGCTCGCGTGGGCTCCGTGGCCATCAAGCTGTGC
AATCTGCTGAAGATAGCACCACCTGCCGTGTGCCAATCCATTGTCCACCTCTTTGAGGAT
GACATGGTGGAGGTGTGGAGACGCTCAGTGCTGAGCCCATCTGAGGCCTGTGGCCTGCTC
CTGGGCTCCACCTGTGGGCACTGGGACATTTTCTCATCTTGGAACATCTCTTTGCCTACT
GGCCGAAAACCCGCCCCCCCAAACCCCCTAGCCCCCCAACCCCAAGTGGCCCCTGGCACC
CGCATCCTCTTCTCACTGACCTGCACTGGGATCATGACTACCTGGGAGGCCACGGACCCT
GATTGTGCAAACACACTGTTGTTGCCCCCGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000543 unedited
GCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTGGAGTCCAAGTCTCTTATCTTTA
TTTTAACAGACTGGCAGCATCAGGTCGCAGCAGCAGTACAGGGTTCCTGGCTGGGCAGCA
CAGGCCTGGGGCGACAGCTCCTGTCTTGTCTGCCCAGGGCAGTGTCAACTTAAGCCTCTA
CTCCATGGCTGTGAAAGGACAGCAGCCTCAAGGCAGTCTAGCTCCTGGGCACAGGCAGCC
AAACCCCCTCCCATATCCAGCTAAACCAGCTCCAGGAAAGGAGAAGGTCCTGTTTCCCCG
GCATCCTTGGGGCCCAGGGACTGGTTCTTTCACCGGATGATCTTGCCTGGTTGAACCACA
GCAGCATTTGGGCTTTTTCACCCTTTCCTACATCAAGAACTTTCCCAAATGTGGGCCCTG
GGGCCCTAGCAAAACAGTGGCCTTGGCCACAGGCTCTGGGCCTCTGGGAGGCTCCCATCT
GGCATCAGGTGGCGGCACAGAGCAGGGCTGTCAGCACGGGCAGAGAGCTGGGCACAAAGA
GTAGCCAGACGGCAGGGCGTGCCACAGGGCTCCGAGGGTGGGTGGCCCTTATGGTAGAGA
AACCAGAAGGTCTGGAAAAGTTGCATGTCGCCCCGCATGCGATATACCATGTTGTGCCAG
GCGGTATGCAGTGTGTTGGGCAGCCCATATGTTTCTCGAGCCCTGTAGAGAATCTGNCAG
TGCGGTATGGCTCCCCGTATGTTTGCCTGGGTCAAATTCANGATGTAGGTCTCATGGTCC
CAGAACACGTGAGATGCTCCGGAGTAGTTTCCATCTATTTGGTACACACGGTACCCAGAT
TAAGCCGATGTAAGTAGTTGCACTGGGTGCCANGAAAGCTACAGCCANNCGCCGGCTCAA
AGTCTCTTCTCATAGAAGACCTCCAATCCTCCACCATGATGTTGGCCAAGAACTGAGCGC
NCAGGGGTGGTCTCATACCTGGCTACANTNCNGNNNATANTCCACNTCCAC

Restriction Sites: NotI-NotI

ACCN: NM_000543

Insert Size: 2640 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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).

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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_000543.3, NP_000534.3
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
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] Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).

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