

Product datasheet for **MC203228**

Sgpp1 (NM_030750) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sgpp1 (NM_030750) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sgpp1
Synonyms:	AI463453; SPP; SPP1; Spph1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC037592
 CCACGCGTCCGCGGACGCGTGGGGTCGCCGACGCTCGAGCTAGTCGAGCTAGGCACCGTGGCGGCTGT
 GGCTGGCAGGAGCGCGTGGCCGATCAATCCCGAGTGGCCCGACCATGTCCCTGGGCAGCGGCTG
 GCTCTGCTGGCCAGCCGCTGTCAGGAGCCGACGGGTGGCGAGCTTCCAGCGTCTGTGTGGGTGGAGG
 TGCCGCTCAGCAGCCGGCGGACGAGGATGCAGAGACCGAGGTTCCGGAGCCCCGGGAGAACCCCG
 GCGACGGGACGGCAGCCGGCGCTGAGGACAGCCCCCAAGGGGACTGCTGCGGTGCCCGAACGGC
 GTGCGCAACGGGCTGGCGCCGAGCCGGCCCCGACCGGGCCCCGCGCGGGCTCGCAGCGCCGCACT
 CGTTGACGGGCGAGGAGGGCGAGCTGGTCAAAGTGAGCAACTTGGCGCTCTACTACTGTTCTGCCCTAGG
 CACGGAAGTGGGCAACGAGCTCTTCTACATCTTATTCTTCCCCTTCTGGATCTGGAATCTCGACCCCTT
 GTGGCCGGAGGCTGGTATCATCTGGGTGCTGGTACCTGGCCAGTGCACCAAGGACATCATCC
 GCTGGCCACGGCCGCTCGCCGCTGTATCAAGCTGGAGGTTCTACAACCTCGGAATACAGCATGCC
 CTCACGCATGCCATGTCAGGCACCGCCATCCCCATCGCCATGTTCTGCTCACCTATGGCCGCTGGCAG
 TATCCTCTTATCTACGGGCTGATTCTCATTCCCTGCTGGAGTTCAGTCTTGCCTAAGTAGAATCTACA
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 CCCATTGGTGGACCTGATTGACAACCTCAACAACTTACAAATATGCGCCGCTCATCATCGGGCTT
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 GTAACCTCCAGTATCCGTGTCATGACATTCGCAAGCAAGGCAGCACATGGAAGTGGAGCTGCCATA
 CCGGTATATTACCTACGGGATGGTTGGTTCTCCATCACGTTTTTGGTCCCCTATGATTTTCTTTATT
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 ACTTAGAATGTTACCAATGTTTGGGAGTCTGTGCTTTACAATGTAGTTATATATACCATATAT
 TAAGGCACACGGTGTGCAAAGGTGTGTCTAGTATATATATATACTGTTTACCTAACACAGTGG
 GGTGATTGAAAAAATCAGTAACAATATGCAGTTGTGCCAGGTTTTTGGAAATTAATGCAGGCATGTTG
 TTATTAACAAATAGGCTTAGTGTCTTCTCTGGGAGCCATTTCTAGTTGAGTTGGTAAATAGCAGA
 CAGAAATCTGTGTCTACCGCACACTTGACTTACTGTCTCTCCCCACACTGCCAGCTCCCTTCATTTACC
 CATGAACGAGAGGCATTTCTAATGGACCAAGTTTTGGGGAAGTTTGTGTTGAGATTTTTTTCCAT
 TCTTAAAGTCTGTACACTGTGTTGAATGATTTTTTTTCCCACTGTTTGGTACACCAATTCAGGTA
 CTGAATTTTATTGCTTGAAGTGTGCCTTTCTTTTCTGAAATTAAGAGACCATGTATACTGTGATAT
 AAAAGTGACACTTAATTTCTATCATAAGCCACATCATCAGGCAAAATTTTTAAAATATATATCAAAC
 TAACAGAAGTAAATGGCCATAACTCTTCAGTCGTTTTTGTAGAAAGAAATGTGGAATTTGTAAGTTTTCT
 CACTAATTTATTGAAAGCTAAATGGATAAGTATTTCCATTTTGTAAAGTATTTTCTGTGCATTGCAAG
 TTATTGGAACAGTATATATATGTAAGTACGTTGTCTTGATTGTGTATAGTACAAAATAACTCCAGGG
 AGTGGAACATCACTGAAATTTATAGATGAGACAGTGTATACCCTTCCTATGTACACAAGCCATTTTCT
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 GATTATAAAAATCCAAACGTGAAATATCCGTAGCTAAGATTCTATTATTTTTCCCACTAATTTTTTAC
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 CAATTAGGTTAACATTACGTTTATTTGGTGGAGGTTTTTTGTAAAGAAGAGAATTAATTTTCCATACAA
 ATGAACACCAGGTGGAGGTAATGATTTTGTGCAATAATCTCTGATTATTTAGAAGGAAAACGTTTCTAT
 TTTGGACAAGGAAAGTATCTGAGCTTCTATTTTTTATAATTCTCATTGAAAGCTTGGGGCTTGGTAGT
 TTTTACCACAAAGAATCTGATCAACTTAAGCAAGTAAATTTGGACCCTTTGGCCACCAGGAGAAGAAA
 GCGAGGTGCTTAGAAAAGTACGGTACGCAGGGAGCTCAGAAGCTGCGGAGAGCAGGGATTGCTCCACAG
 ATGTGCTCTGTGAGTTGAGCTATAGACAGGGTCCCCACTTTGGGTCTGTTATGCTATTAATTTTTGTGT
 GTCACCTAAAAAGAATTAGAAAAGATTCTATTTCTGTGTTTGTTTTTGTTGATGACAGTTCTATGCT
 AAATGTATTTTAAAATAAAGCCGAGATCAATACCGAAAAAATAAAAAAAAAA

Restriction Sites: RsrII-NotI
ACCN: NM_030750

Insert Size:	1293 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).
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.
RefSeq:	BC037592 , AAH37592
RefSeq Size:	3274 bp
RefSeq ORF:	1293 bp
Locus ID:	81535
UniProt ID:	Q9J199
Cytogenetics:	12 C3

Gene Summary:

Specifically dephosphorylates sphingosine 1-phosphate (S1P), dihydro-S1P, and phyto-S1P (PubMed:10859351, PubMed:11756451). Does not act on ceramide 1-phosphate, lysophosphatidic acid or phosphatidic acid. Sphingosine-1-phosphate phosphatase activity is needed for efficient recycling of sphingosine into the sphingolipid synthesis pathway. Regulates the intracellular levels of the bioactive sphingolipid metabolite S1P that regulates diverse biological processes acting both as an extracellular receptor ligand or as an intracellular second messenger (PubMed:10859351, Ref.2). Involved in efficient ceramide synthesis from exogenous sphingoid bases. Converts S1P to sphingosine, which is readily metabolized to ceramide via ceramide synthase (PubMed:12235122, PubMed:17895250). In concert with sphingosine kinase 2 (SphK2), recycles sphingosine into ceramide through a phosphorylation/dephosphorylation cycle (PubMed:17895250). Regulates endoplasmic-to-Golgi trafficking of ceramides, resulting in the regulation of ceramide levels in the endoplasmic reticulum, preferentially long-chain ceramide species, and influences the anterograde membrane transport of both ceramide and proteins from the endoplasmic reticulum to the Golgi apparatus (By similarity). The modulation of intracellular ceramide levels in turn regulates apoptosis (PubMed:12235122). Via S1P levels, modulates resting tone, intracellular Ca(2+) and myogenic vasoconstriction in resistance arteries. Also involved in unfolded protein response (UPR) and ER stress-induced autophagy via regulation of intracellular S1P levels (By similarity). Involved in the regulation of epidermal homeostasis and keratinocyte differentiation (PubMed:23637227).[UniProtKB/Swiss-Prot Function]