

Specifications:

Gene:	mSphk2
Accession:	NP_064395.2
Insert size:	1867bp
Concentration:	10µg at 0.2µg/µL

**mShingosine Kinase
2/SPHK2 cDNA
Plasmid**

Sphk2 sphingosine kinase 2
[*Mus musculus* (house mouse)]

Also known as: Sk2; Spk2; C76851

Summary:

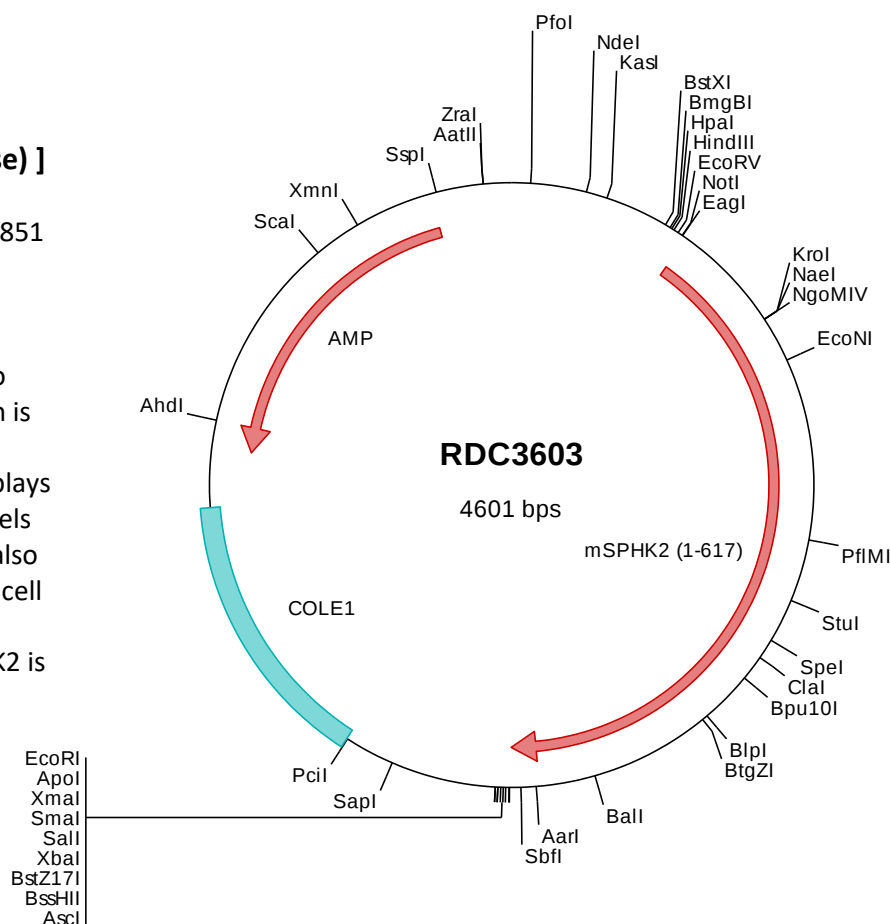
SPHK2 is a kinase that phosphorylates sphingosine into sphingosine-1-phosphate, which is involved in cell differentiation, motility, and apoptosis. SPHK2 plays a role in maintaining cellular levels of sphingosine-1-phosphate. It also enhances apoptosis in different cell types and suppresses cellular proliferation. In mast cells, SPHK2 is necessary for influx of calcium, protein kinase C activation, and cytokine production and degranulation.

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.



> RDC3603 Plasmid DNA Sequence

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1  tcgcgcgctt cggatgatgac ggtgaaaacc tctgacacat gcagctcccc gagacgggtc cagcttgtct gtaagcggat gccgggagca gacaagcccg
101  tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg ctttaactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
201  ccgcacacgat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aagggcgatc ggtgcgggcc tcttcgctat
301  tacgccagct ggcgaaaagg ggatgtgtcg caaggcgatt aagttgggta acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgatt
401  ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggcgcgcaacc atggcccaac caccactact gccagtggtt gccagcactc caatcctgca
501  cggcgagcttt ggttccctacc cggccaacgg cccacggttt gccctcacc tcacaacaca agccctacac atacagcgac tacgcccaaa gccagaagcc
601  cggccccgag atggtctagt ctctctggat gaggctctcg gctgtggcac cctgcagagc cgtagccccc aggcactgc agcctaactt tgcctctaca
701  cctacccacg ttggcgttga gggggcgggc gcagagctac gcggaccttc cggcgggatg gggccaccac ttatgaggag aatcgtgcag agggccagcg
801  ctggggccact gccctcactg gtctctcccg aggagtgcct ctgtcagggg accaggaat caccctgaa ttgtgcccc ggaagcccag gctgctcata
901  ttggtcaatc cctttggagg gcggggcctg gcctggcagc gctgtatgga ccacgtggtg ccaatgatct ctgaagctgg gctgtccttc aaacctatac
1001  agacagaaac acagaaacat gccogtgagc tgggtcaggg gtttaagcctg agtgagtggg aaggcattgt cactgtgtot ggagacgggc ggtgccagcg
1101  ggtgtcgaat gggctccttg atcggccaga ctgggaggat gccgtgcgga tgccatttgg tgtcctcccc tgttgatcgg gcaatgcgct agctggggcg
1201  gtgaaccata atggggggtt tgagcagggt gtcggtgttt acctgtgtct caactgctcg cttctctctt gccgtgttgg cagccatctc ctggacctgc
1301  tctctgtgac gctagctcg ggatcccgct gtttttctct ctgtctcagt gcctggggat tcttgcaga tgtggacatt cactgtagc gcttcagggc
1401  cctgggcagc gctcgattca cactgggtgc agtgctaggc ctggcctcgt tgcatacctt ccgtggagcg ctctctacc tcccgcgtac cacagaacca
1501  goettgcccc tcccaggcca cagtctgcct cgagccaagt cagaactagt cttggctcca gccccagccc ccgcgcgcac ccaactgcct ctacatogat
1601  ctgtgtctga cctgccctg cccctcccc agcctgcctt ggtctcccc ggctccccct agccccctgc tgacctgtcc ctcaatgggt gtggtccaga
1701  gctgactgga gaetggggag gactgtggga tgcacctctg tcccagacac cactgtgcct ttcctcccc aacgctctca aaacagctca gctttcacc
1801  atcgtgtaag ggcocccaga atgcacagca tcttcggggt tctgcctccc caaccacgt gccccagaag cctctacctg gggccagtg gaccacctcc
1901  tccctccctc ggctccctga actgggtgac actgggtgag aatgagggg gagtttgttg tcatgttggg cactcttgcg agccacctct gcgcagacct
2001  gatggcagcc ccacatgcac gctttgatga tggcgttgtg caactgtgtt ggggtcggag cggcatctca cgggctgcac tctacgcgat tttgctggcc
2101  atggagcact gaaacacact gagcctgggc tgccccctc gcaggtatgc ccaggtctcg ccacgtgct cactgggctt cactgggctt
2201  ctgtagatgg ggagtttagt gagtattggc caatacagcg gcaggtctcg ccacgtgct ctagcttggc gtaatcatgg tcatagctgt ttcctgtgtg
2301  ctaaaaggcgc gccagtatat tctagagtcg acacccgggg aattcctcga gcgtctgtct ctagcttggc gtaatcatgg tcatagctgt ttcctgtgtg
2401  aaattgttat ccgctcaciaa ttccacacia catacagacc ggaagcataa agtgtaaagc ctgggggtgc taatgagtga gctaaactac attaatgcg
2501  ttgcgctcac tgcgcgtttt ccagtcggga aacctgtcgt gccagctgca ttaatgaatc ggccaacgcg cggggagagg cgttttgcgt attgggcgt
2601  cttccgcttc ctgcctcac gactcgtgc gctcgtctgt tcggctgcgg cgagcggtat cagctcactc aaaggcggta atacggttat ccacagaatc
2701  accgggataac gcaggaaaaga acatgtgagc aaaaggccag ggaaccgttaa aaaggccgcg ttgctggcgt ttttccatag gctccgcccc
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3001  ttcggtttag atcgtttcgt ccaagctggg ctgtgttgca gaaccccccg ttcagccgca cctgtgcgct ttatccggtg taactcgtct tgaatccaac
3101  ccggttaagc agcacttatc gccactggca gcagccactg gtaacaggat tagcagagcg aggtatgtag cgggtgtctac agagtctctt aagtgtggc
3201  ctaactacgg ctacactaga aggacagtat ttggtatctg cgctctgctg aaagccagtt ccttcggaaa aagagtgtgt agctcttgat ccggcaaaaa
3301  aaccacgcgt ggtagcgggt ttttttttgt ttgcaagcag cagattacgc gcagaaaaaa aggatctcaa gaagatcctt tgactttttc taccgggtct
3401  gacgctcagt ggaacgaaaa ctcacgttaa gggatttttg tcatgagatt atcaaaaagg atcttcacct agatcctttt aaattaaaaa tgaagtttta
3501  aatcaatcta aagtatatat gagttaaact ggtctgacag ttaccaatgc ttaactcagt aggcacctat ctacgcgac tgctattttc gttcatccat
3601  agttgcctga ctccccgtcg ttagataaac tacgatacgg gagggcttac catctggccc cagtgtctga atgataccgc gagacccacg ctacccggct
3701  ccagatttat cagcaataaa ccagccagcc ggaaggcccg agcgcagaag ttgctctgca actttatccg cctccatcca gcttattaat tgttgcggg
3801  aagctagagt aagttagttc ccagtttaata gtttgcgcaa cgttgttgcc gcaaaaaaagc ggttagctcc ttcggtctct cgatcgttgt cagaagtaag
3901  cagctccggt tcccaacgat caaggcgagt tacatgatcc cccatgttgt tactgtcatg ccatccgtaa gatgttttc tgtgactggt gactactcaa
4001  ttggcccgag tgttatcact catggttatg gcagcactgc ataattctct tactgtcatg gggataatac cgcgccacat agcagaactt taaaagtgtc
4101  ccaagtcatt ctgagaatag tgtatcgccg gaccgagttg ctcttgcggc gctcaataac tgtttgagatc cagttcgatg taaccactc gtcacccaa ctgatcttca
4201  catcattgga aaacgtttct cggggcgaaa actctcaaag atcttaccgc tttttgagatc aaaaagggaa taaggcgac acggaatgt tgaatactca
4301  gcattcttta ctttcaccag cgtttctggg tgagcaaaaa caggaaggca aaatgccgca aaaaagggaa taaggcgac acggaatgt tgaatactca
4401  tactcttctt ttttcaatat tattgaagca tttatcaggg ttattgtctc atagagcgat atatatgtga atatataggc gtaacacgag gcccttctgt
4501  tccgcgcaca tttccccgaa aagtgccacc tgacgtctaa gaaaccatta ttatcatgac attaacctat aaaaataggc gtaacacgag gcccttctgt
4601  c

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> RDC3603 Translated Insert Sequence

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1  mapppllpva astpilhgef gsypangrprf altlttqalh iqrlrpkea rprdglsld evsgcgtlqs rspedtaayf ciytyprgrrr grrrratrtf
101  radgattyee nraeaqrwat altcollrgvp lsgdqeitpe llprkprlli lvnpgfgrgl awqrcmdhvv pmiseaglsf nliqterqnh arelvqglsl
201  sewegivtvs gdgllyevln glldrpdwed avrmpigvlp csgsnalaga vnhhggefv vgvdlilncs lllcrggshp ldllsvtlas gsrfcsflsv
301  awgflsdvdi hserfralgs arftlgavlq laslhtyrgr lsylpattep alpipghslp rakselvlap apapaathsp lhrsvsdlpl plppalvsp
401  gspeplpdlis lngggpeltg dwggagdapl spdpllpssp nalktaqlsp iaegppempa ssgflppths apeastwgpv dhllpplgsp lpqdwvtieg
501  efvlmlgilp shlcadlmaa pharfdggvv hlcwvrsgis raallrilla mehgnhfslg cphlgyaaar afrlepltrp glttvdgelv eygpiaqavh
601  pglatlltgp agqkqpqa

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