

Specifications:

Gene:	mSEMA4A
Accession:	NP_038686
Insert size:	2295bp
Concentration:	10µg at 0.2µg/µL

mSemaphorin 4A cDNA Plasmid

Sema4a sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A [*Mus musculus* (house mouse)]

Also known as: SemB;
Semab

Summary:

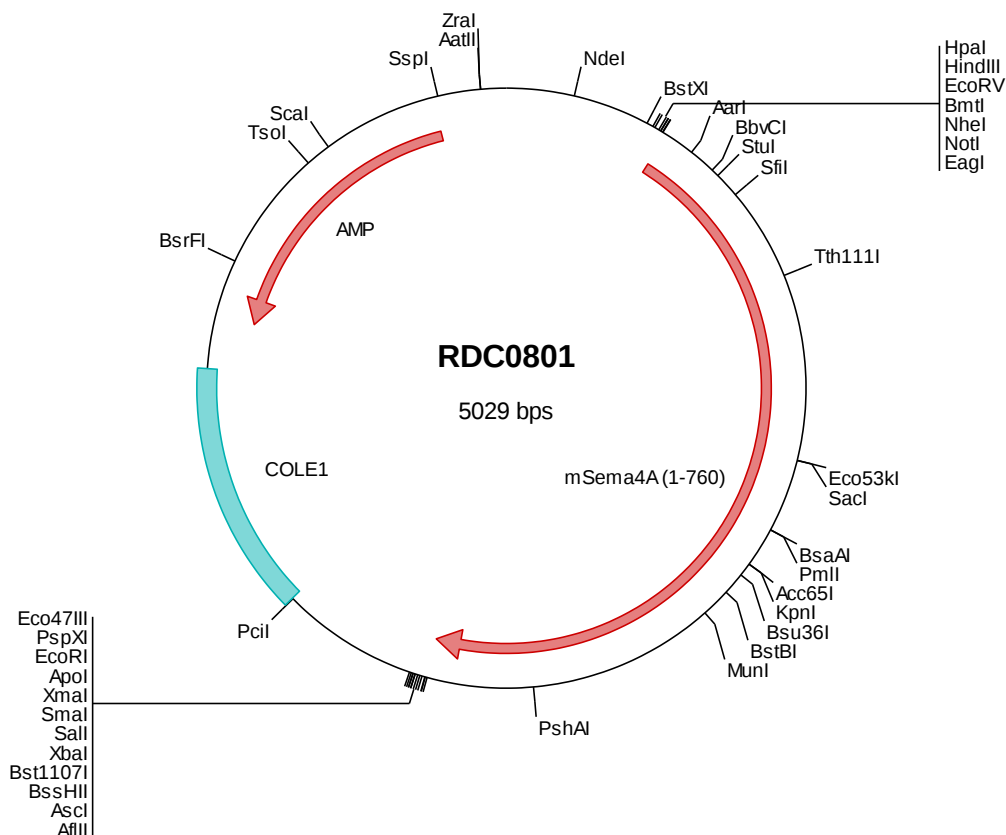
Semaphorins are a family of secreted and membrane-bound proteins, known to control axonal pathfinding. SEMA4A induces T cell activation in the immune system and is an important regulator of Th2-driven lung pathophysiology. It also induces growth cone collapse in hippocampal neurons.

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.





> RDC0801 Plasmid DNA Sequence

```
1   tcgcgcggtt cggatgatgac ggtgaaaacc tctgacacat gcagctcccc gagacggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
101  tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
201  ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aaggcgcatc ggtgcgggcc tcttcgctat
301  tacgccagct ggcgaagggt ggaatgtctg caaggcgatt aagtgggta acgccagggt tttccagtc acgacgttgt aaaacgacgg ccagtgaatt
401  ggagacgtgt taacaagctt ggaatccgata tcgctagcgc ggccgcacac atggccctac catccctggg ccaggactoa tggagtctcc tgcgtgtttt
501  ctctctccaa ctctctctgc tgccatcaact gccacctgct totgggactg gtggtcaggg gcccatgccc agagtccaat accatgtcgg agacggggac
601  agggccctca gcttctctca acaaaaaggg ctccgagact ttgacacgct gctcctgagt gaagatggca acactctcta tgtgggggct cgagagggcg
701  tccctggcctt gaatatccag aacccaggaa tcccaaggct aaagaacatg ataccctggc cagccagtga gagaaaaaag accgaatgtg cctttaagaa
801  gaagagcaat gagacacagt gtttcaactt cattcgagtc ctggtctctt acaatgctac tcacctotat gccctgtgga cctttgcctt cagtcctgcc
901  tgtaccttca ttgaactcca agattccctc ctgttgccca tottgataga caaggtcatg gacgggaagg gccaaagccc ctttgacctt gttcacaagg
1001 acacagctgt cttggtcgat gggatgcttt attccggcac catgaacaac ttctgggcca gcgagcccat cctgatcggt acactgggat cccagcctgt
1101 ttccgcgcat tacgcagttt ttacctccca gtggcagggt ggccgggaca ggagctcagc agtctgtgcc ttctctctca cggacattga gcgagtcttt
1201 gccagcgagt ttgactctct tgaagagctg tataatatcca ggggtggctca agtctgcaag aacgacgtgg gcggtgaaaa gctgctgcag aagaagtggg
1301 ccacctctct caaagcccag ttgctctgcg ctccagccagg gcagctgcca ttcaacatca tccgccacgc ggtctctgtg cccgcgatt ctccctctgt
1401 ttccgcgcat tacgcagttt ttacctccca gtggcagggt ggccgggaca ggagctcagc agtctgtgcc ttctctctca cggacattga gcgagtcttt
1501 aaaggggaagt acaaggagct gaacaaggag acctcccgct ggacacacta ccggggctca gaggtcagcc cgaggccagg cagttgtctc atggggccct
1601 cctctgacaa agccttgacc ttcatgaagg accattttct gatggatgag cacgtggtag gaacaccctt gctggtgaag tctggtgtgg agtacacacg
1701 gctgtcgttg gagtccagtc ggggccttga tgggagcagc catgttgctca tgtatctggg tgatctcagg gggtccctgc acaaggctgt ggtgcctcag
1801 gacagcagtg cttatctcgt ggaggagatt cagctgagcc ctgactctga gcctgttoga aacctgcagc tggcccccgc ccagggtgca gtgtttgcag
1901 gcttctctgg aggcactcgg agagtcccca gggccaaatt cagtgtctac gagagctgtg tggactgtgt gcttgccagg gacctcact gtgcctggga
2001 cctcgaatca agactcttct tacgtcggtt gcacgcggat gcctccttgg agcaggacat ggaaacgcggc aaccggagt gggtatgcac ccgtggcccc
2101 atggccaggga gcccccggcg tcagagcccc cctcaactaa ttaaagaagt cctgacagtc cccaactcca tctggagctt gccctgcccc caoctgtcag
2201 cactggcctc ttacctctgg agtcatggcc gagccaaaaa ctcagaagcc tctgtctacc ttacaaatgg ctccctcttg ctgctgcgcg aggatgggtg
2301 cgggggcctc taccaagtgt ttgcgactga gaacggctac toataccctg tgggtctcag ttgggtagac agccactggc gctggacctt gctggacctt
2401 gactggtcgg gcgttccccg tgagcgtgtg caggtccccc tgaccagggt cggaggcgga gcttccatgg ctgcccagcg gtccactcgg ccccattttc
2501 tcatggttac cgtcctcctg gccatcgtgc tccctggagt gctcactctt cctcctcgct ccccaactgg ggcgtgcgg ctcgggggta aggttcaggg
2601 ctgtgggcat ctgcaccaa gggaaaagcc tccactgagc agggaccagc ctcccaagcc acactgacgc ccccaagggc cagcaggact cgttagatgc
2701 gacaacaacc atctggcgcg cgaagtggct taaggcgcg cagtatactc tagagtcgac acccggggaa ttctcagac gctcgtctct agcttggcgt
2801 aatcatggtc atagctgttt cctgtgtgaa attgttatcc gctcacaatt ccacacaaca tacgagccgg aagcataaag tgtaaagcct ggggtgccta
2901 atgagtgagc taactcacat taattgcgtt cgcgtcactg cccgctttcc agtcgggaaa cctgtcgtgc cagctgcatt aatgaatcgg ccaacgcgcg
3001 gggagaggcg gtttgcgtat tgggcgtctt cgcgtcactg cctcgtcgcg tcggtcgttc ggctgcggcg agcggatca gctcactcaa
3101 aggcggtaat acggttatcc acagaatcag gggataacgc aggaagaac atgtgagcaa aaggccagca aaaggccagg aaccgtaaaa aggcgcggtt
3201 cgtggcgctt tccatagtcg tgccgactga caccgctcgc tgacgagcat gacgtgcagg tcagaggttg cgaaaccgca cgaagctata aagataccag
3301 cgttttcccc ctggaagctc cctcgtgcgc tctcgtgttc cgacctgccc gcttaccgga tacctgtccg cctttotccc ttccgggaagc gtggcgcttt
3401 ctcaatgctc acgctgtagg tatctcagtt cgggtgaggt cgttcgctcc cactggcagc cactgagcag gtgtgcacga acccccgtt gcgccgacc gctgcgctt
3501 atccggtaac tatcgtcttg agtccaaccc ggttaagacac gacttatcgc cactggcagc agccactggt aacaggatta gcagagcgag gtatgtagc
3601 ggtgctacag agttcttga gttggtgcct aactacgctt acactagaag gacagtattt ggtatctcgc ctctgctgaa gccagttacc ttccgaaaaa
3701 agatgtgtag ctcttgatcc ggcaaacaaa ccaccgctg tagcgtgtgt gcttttgttt gcaagcagca gattacgcgc gattcacaaga gcttcaaga
3801 agatctcttg atcttttcta cggggtctga cgcctcagtg aacgaaaaact cactttaagg gattttggtc atgagattat caaaaaaggt tctcacctag
3901 atctctttta ataaaaatg aagttttaaa tcaatctaaa gtatatatga gtaaaacttg tctgacagtt accaatgctt aatcagtga gcaacctatc
4001 cagcgatctg tctatttctg tcatccatag ttcctgactc ccccgctcgt gataatacta tagataacta cgtacaggga gggcttacca ctggcccca gtgtgcatt
4101 gatacccgca gaccacgct caccggctcc agatttatca gcaataaacc agccagccgg aagggccgag cgcagaagt gtccctgaac ttatatcgcc
4201 tccatccagt ctattaatg ttgccgggaa gctagagtaa gtagttcgcc agttaatagt ttgcgcaacg ttgttgccat tgctacaggg atcgtgggtg
4301 cagcgtcgtc gtttgcgtat gttctattca gctccggttc ccaacgatca agccaggtta catgatcccc catgttgtgc aaaaaagcgg tttagctcct
4401 cggctcctcg atcgttgtca gaagtaagtt ggccgcagtg ttactactca tggttatggc agcactgcac aattctctta ctgtcatgcc atccgtaaga
4501 tgcttttctg tgactgtgtg gtaactcaac aagtcattct gagaatagtg tatcgcgca ccgagttgct cttgcccggc gtcaatacgg gataataccg
4601 cgccacatag cagaacttta aaagtgcctc tcattgcaaa tcttctctcg ggccgaaaaac tctcaaggat cttaccgctg ttgagatcca gttcgatga
4701 acccactcgt gcacccaact gatcttcagc atcttttact ttcaccagcg tttctgggtg agcaaaaaa ggaaggcaaa atgccgcaaa aaagggata
4801 agggcgacac ggaatgttg aatactcata ctcttccttt ttcaatatta ttgaagcatt tatcagggtt attgtctcat gagcgatag atatttgaat
4901 gtatttagaa aaataaacc aaagggttc cgcgcacatt tccccgaaa gtgccacctg acgtctaaga aaccattatt atcatgacat taacctataa
5001 aaataggcgt atcacgagc cctttcgtc
```

> RDC0801 Translated Insert Sequence

```
1   malpslqgds wslrlvfffq lflplsppa sgtggggpmp rvkyhagdgh ralsffqkqg lrdfdtllls ddgntlyvga reavialniq npgiprlknn
101  ipwpaserkk tecafkkksn etqcfnfirv lvsynathly acgtfafspa ctfieldsls llpilidkvm dgkgqspfdp vkhktavldv gmlsygtmnn
201  flgsepilmr tlgsqpvltk diflrwlhad asfvaaipt qvvyfffeet asedffeel yisrvagvck ndvggkllq kkwttflkaq llcaqpgqlp
301  fniirhavll padspvsrri yavftsqwqv gtrssavca flsldierfv kgkykelnke tsrwttyrqs evsprpgscs mgpssdkalt fmkdhflmde
401  hvvgtpllvk sgveytrlav esargldgss hvvmlygtst gslhkavvpq dssaylveei qlspdsepvr nlqlapaqga vfagfsggiw rvprancsvy
501  escvdcvlar dphcawdpes rlcsllsgst kpwkqdmern npewvctrgr marsprrrgs pqlikevlvt pnsilelpcp hlsalasyhw shgrakisea
601  satvnyngsll llpqdgvggl yqcvatengy syppvsvywd sqdqlaldp elagvprerv qvpltrvggg asmaaqrswy phflivtvll aivllgvltl
701  llasplgalr argkvqggcm lpprekapls rdqhlqpskd hrtsasdvda dnnhlgaeva
```