*m*GUCY2C VersaClone cDNA

Catalog Number: RDC2993

Specifications:

Gene:	*m*Gucy2c
Accession:	NP_001120790.1
Insert size:	3232bp
Concentration:	10µg at 0.2µg/µL

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.

*m*GUCY2C cDNA Plasmid

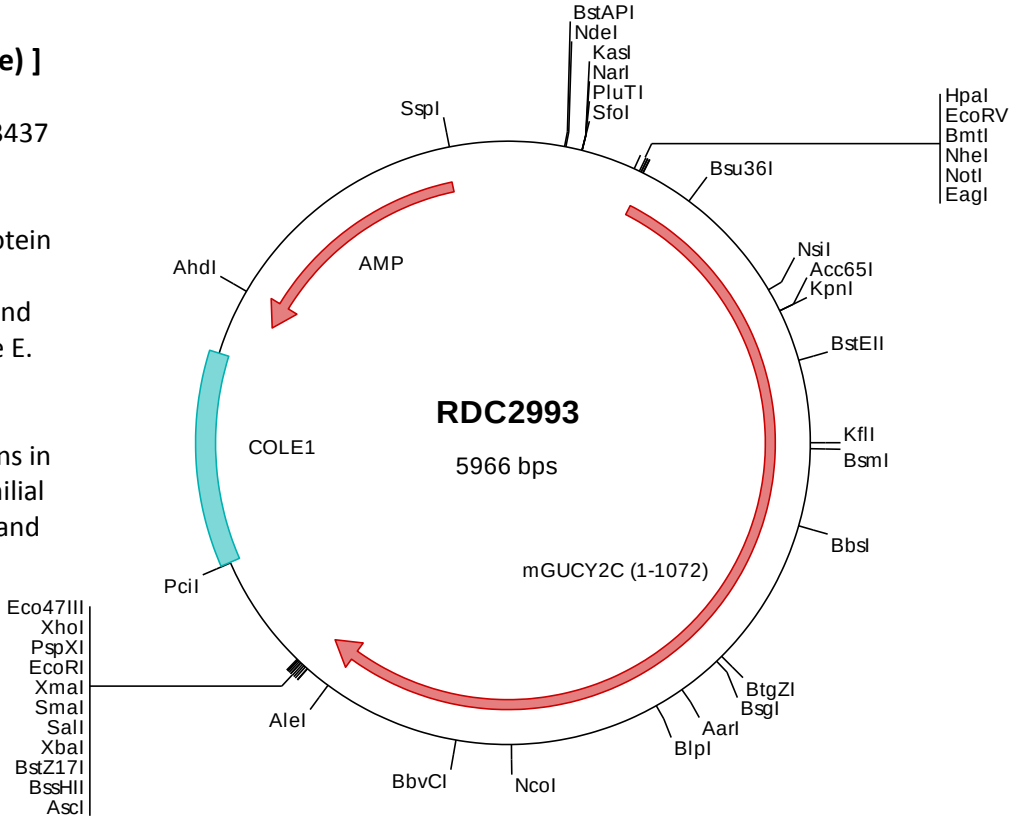
Gucy2c guanylate cyclase 2c

[*Mus musculus* (house mouse)]

Also known as: cc; GC-C; AI893437

Summary:

GUCY2C is a transmembrane protein that functions as a receptor for endogenous peptides guanylin and uroguanylin, and the heat-stable E. coli enterotoxin. It activates the cystic fibrosis transmembrane conductance regulator. Mutations in GUCY2C are associated with familial diarrhea (autosomal dominant) and meconium ileus (autosomal recessive).



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

R&D SYSTEMS
a bio-techne brand

> RDC2993 Plasmid DNA Sequence

```
   1  tcgcgcgttt cggtgatgac ggtgaaaacc tctgacacat gcagctcccg gagacggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
 101  tcagggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttaactatg cggcatcaga gcagattgta ctgagagtgc accatatgcg gtgtgaaata
 201  ccgcacagat gcgtaaggag aaaataccgc atcaggcgcc attcgccatt caggctgcgc aactgttggg aagggcgatc ggtgcgggcc tcttcgctat
 301  tacgccagct ggcgaaaggg ggatgtgctg caaggcgatt aagttgggta acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgaatt
 401  ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggccgccacc atgacgtcac tgctgggctt ggctgtgcgg ttactgctct tccagcccgc
 501  gctgatggtg ttctgggcct ctcaggtgag gcagaactgc cgcaatggca gctacgagat cagcgtcctg atgatggaca actcagccta caaagaacct
 601  atgcaaaacc tgagggaggc tgtggaggaa ggactggaca tagtgcgaaa gcgcctgcgt gaagccgacc taaatgtgac tgtgaacgcg actttcatct
 701  actccgacgg tctgattcat aagtcaggtg actgccggag cagcacctgt gaaggccttg acctactcag ggagattaca agagatcata agatgggctg
 801  cgccctcatg gggccctcgt gcacgtattc caccttccag atgtacctcg acacagagtt gaactatccc atgatttccg ctggaagtta tggattgtcc
 901  tgtgactata aggaaaccct aaccaggatc ctgcctccag ccaggaagct gatgtacttc ttggtcgatt tctggaaagt caacaatgca tctttcaaac
1001  ccttttcctg gaactcttcg tatgtttaca agaatggatc ggaacctgaa gattgtttct ggtacctcaa tgctctggag gctggggtgt cctatttttc
1101  tgaggtgctc aacttcaagg atgtactgag acgcagcgaa cagttccagg aaatcttaac aggccataac agaaagagca atgtgattgt tatgtgtggc
1201  acgccagaaa gcttctatga tgtgaaaggt gacctccaag tggctgaaga tactgttgtc atcctggtag atctgttcag taaccattac tttgaggaga
1301  acaccacagc tcctgagtat atggacaatg tcctcgtcct gacgctgccg tctgaacagt ccacctcaaa cacctctgtc gccgagaggt tttcatcggg
1401  gagaagtgac ttttctctcg cttacttgga gggaaccttg ctatttggac acatgctgca gacgtttctt gaaaatggag aaaatgtcac gggtcccaag
1501  tttgctcgtg cattcaggaa tctcactttt caaggctttg caggacctgt gactctggat gacagtgggg acattgacaa cattatgtcc cttctgtatg
1601  tgtctctgga taccaggaaa tacaaggttc ttatgaagta tgacacccac aaaaacaaaa ctattccggt ggctgagaac cccaacttca tctggaagaa
1701  ccacaagctc cccaatgacg ttcctgggct gggccctcaa atcctgatga ttgccgtctt cacgctcacg gggatcctgg tagttctgct gctgattgcc
1801  ctcctcgtgc tgagaaaata cagaagagat catgcacttc gacagaagaa atggtcccac attccttctg aaaacatctt tcctctggag accaacgaga
1901  ccaaccacat cagcctgaag attgacgatg acaggagacg agacacaatc cagagagtgc gacagtgcaa atacgacaag aagaaagtga ttctgaaaga
2001  cctcaagcac agcgacggga acttcagtga gaagcagaag atagacctga acaagttgct gcagtctgac tactacaacc tgactaagtt ctacggcacc
2101  gtgaagctgg acaccaggat ctttggggtg gttgagtact gcgagagggg atccctccgg gaagtgttaa acgacacaat ttcctaccct gacggcacgt
2201  tcatggattg ggagtttaag atctctgtct taaatgacat cgctaagggg atgtcctacc tgcactccag taagattgaa gtccacgggc gtctcaaatc
2301  caccaactgc gtggtggaca gccgcatggt ggtgaagatc accgactttg ggtgcaattc catcctgcct ccaaaaaaag acctgtggac ggccccggag
2401  cacctgcgcc aggccaccat ctctcagaaa ggagacgtgt acagcttcgc catcattgcc caggagatca tcctccgtaa ggagactttt tacacgctga
2501  gctgtcggga tcacaatgag aagattttca gagtggaaaa ttcatacggg aaacctttcc gcccagacct cttcctggag actgcagatg agaaggagct
2601  ggaggtctat ctacttgtca aaagctgttg ggaggaggat ccagaaaaga ggccagattt caagaaaatc gagagcacac tggccaagat atttggcctt
2701  ttccatgacc agaaaaacga gtcttacatg gacaccttga tccgacgtct ccagctgtac tctcgaaacc tggaacatct ggtggaggaa aggactcagc
2801  tgtacaaggc ggagagggac agggctgacc accttaactt catgctcctc ccacggctgg tggtaaagtc actgaaggag aaaggcatcg tggagccaga
2901  gctgtacgaa gaagtcacaa tctacttcag tgacattgtg ggcttcacca ccatctgcaa gtatagcacg cccatggagg tggtggacat gctcaacgac
3001  atctacaaga gctttgacca gattgtggac caccatgacg tctacaaggt agaaaccatc ggtgacgcct acgtggtggc cagcggtctg cctatgagaa
3101  acggcaaccg acacgcggta gacatttcca agatggcctt ggacatcctc agcttcatag ggacctttga gttggagcat ctccctggcc tccccgtgtg
3201  gatccgcatt ggagttcatt ctgggccctg cgctgctggt gttgtgggga tcaagatgcc tcgctattgc ctgtttggag acactgtcaa cactgcctcc
3301  aggatggaat ccaccggcct ccccttgagg attcacatga gcagctccac cataaccatc ctgaagagaa cggattgcca gttcctgtat gaagtgaggg
3401  gagaaaccta cttaaaggga agaggacag agaccacata ctggctgact gggatgaagg accaagaata caacctgcca tccccaccga cagtggagaa
3501  ccaacagcgt ctgcagactg agttctcaga catgatcgtt agcgccttac agaaaagaca ggcctcgggc aagaagagcc ggaggcccac tcgggtggcc
3601  agctacaaga aaggctttct ggaatacatg cagctgaaca attcagacca cgatagcacc tatttttaaa ggcgcgccag tatactctag agtcgacacc
3701  cggggaattc ctcgagcgct cgtctctagc ttggcgtaat catggtcata gctgtttcct gtgtgaaatt gttatccgct cacaattcca cacaacatac
3801  gagccggaag cataaagtgt aaagcctggg gtgcctaatg agtgagctaa ctcacattaa ttgcgttgcg ctcactgccc gctttccagt cgggaaacct
3901  gtcgtgccag ctgcattaat gaatcggcca acgcgcgggg agaggcggtt tgcgtattgg gcgctcttcc gcttcctcgc tcactgactc gctgcgctcg
4001  gtcgttcggc tgcggcgagc ggtatcagct cactcaaagg cggtaatacg gttatccaca gaatcagggg ataacgcagg aaagaacatg tgagcaaaag
4101  gccagcaaaa ggccaggaac cgtaaaaagg ccgcgttgct ggcgtttttc cataggctcc gccccctga cgagcatcac aaaaatcgac gctcaagtca
4201  gaggtggcga aacccgacag gactataaag ataccaggcg tttcccctg gaagctccct cgtgcgctct cctgttccga ccctgccgct taccggatac
4301  ctgtccgcct ttctcccttc gggaagcgtg gcgctttctc aatgctcacg ctgtaggtat ctcagttcgg tgtaggtcgt tcgctccaag ctgggctgtg
4401  tgcacgaacc ccccgttcag cccgaccgct gcgccttatc cggtaactat cgtcttgagt ccaacccggt aagacacgac ttatcgccac tggcagcagc
4501  cactggtaac aggattagca gagcgaggta tgtaggcggt gctacagagt tcttgaagtg gtggcctaac tacggctaca ctagaaggac agtatttggt
4601  atctgcgctc tgctgaagcc agttaccttc ggaaaaagag ttggtagctc ttgatccggc aaacaaacca ccgctggtag cggtggtttt tttgtttgca
4701  agcagcagat tacgcgcaga aaaaaaggat ctcaagaaga tcctttgatc ttttctacgg ggtctgacgc tcagtggaac gaaaactcac gttaagggat
4801  tttggtcatg agattatcaa aaaggatctt cacctagatc cttttaaatt aaaaatgaag ttttaaatca atctaaagta tatatgagta aacttggtct
4901  gacagttacc aatgcttaat cagtgaggca cctatctcag cgatctgtct atttcgttca tccatagttg cctgactccc cgtcgtgtag ataactacga
5001  tacgggaggg cttaccatct ggccccagtg ctgcaatgat accgcgagac ccacgctcac cggctccaga tttatcagca ataaaccagc cagccggaag
5101  ggccgagcgc agaagtggtc ctgcaacttt atccgcctcc atccagtcta ttaattgttg ccgggaagct agagtaagta gttcgccagt taatagtttg
5201  cgcaacgttg ttgccattgc tacaggcatc gtggtgtcac gctcgtcgtt tggtatggct tcattcagct ccggttccca acgatcaagg cgagttacat
5301  gatcccccat gttgtgcaaa aaagcggtta gctccttcgg tcctccgatc gttgtcagaa gtaagttggc cgcagtgtta tcactcatgg ttatggcagc
5401  actgcataat tctcttactg tcatgccatc cgtaagatgc ttttctgtga ctggtgagta ctcaaccaag tcattctgag aatagtgtat gcggcgaccg
5501  agttgctctt gcccggcgtc aatacgggat aataccgcgc cacatagcag aactttaaaa gtgctcatca ttggaaaacg ttcttcgggg cgaaaactct
5601  caaggatctt accgctgttg agatccagtt cgatgtaacc cactcgtgca cccaactgat cttcagcatc ttttactttc accagcgttt ctgggtgagc
5701  aaaaacagga aggcaaaatg ccgcaaaaaa gggaataagg gcgacacgga aatgttgaat actcatactc ttcctttttc aatattattg aagcatttat
5801  cagggttatt gtctcatgag cggatacata tttgaatgta tttagaaaaa taaacaaata ggggttccgc gcacatttcc ccgaaaagtg ccacctgacg
5901  tctaagaaac cattattatc atgacattaa cctataaaaa taggcgtatc acgaggccct ttcgtc
```

> RDC2993 Translated Insert Sequence

```
   1  mtsllglavr lllfqpalmv fwasqvrqnc rngsyeisvl mmdnsaykep mqnlreavee gldivrkrlr eadlnvtvna tfiysdglih ksgdcrsstc
 101  egldllreit rdhkmgcalm gpsctystfq myldtelnyp misagsygls cdyketltri lpparklmyf lvdfwkvnna sfkpfswnss yvykngsepe
 201  dcfwylnale agvsyfsevl nfkdvlrrse qfqeiltghn rksnvivmcg tpesfydvkg dlqvaedtvv ilvdlfsnhy feenttapey mdnvlvltlp
 301  seqstsntsv aerfssgrsd fslaylegtl lfghmlqtfl engenvtgpk farafrnltf qgfagpvtld dsgdidnims llyvsldtrk ykvlmkydth
 401  knktipvaen pnfiwknhkl pndvpglgpq ilmiavftlt gilvvlllia llvlrkyrrd halrqkkwsh ipsenifple tnetnhislk idddrrrdti
 501  qrvrqckydk kkvilkdlkh sdgnfsekqk idlnkllqsd yynltkfygt vkldtrifgv veycergslr evlndtisyp dgtfmdwefk isvlndiakg
 601  msylhsskie vhgrlkstnc vvdsrmvvki tdfgcnsilp pkkdlwtape hlrqatisqk gdvysfaiia qeiilrketf ytlscrdhne kifrvensyg
 701  kpfrpdlfle tadekelevy llvkscweed pekrpdfkki estlakifgl fhdqknesym dtlirrlqly srnlehlvee rtqlykaerd radhlnfmll
 801  prlvvkslke kgivepelye evtiyfsdiv gfttickyst pmevvdmlnd iyksfdqivd hhdvykveti gdayvvasgl pmrngnrhav diskmaldil
 901  sfigtfeleh lpglpvwiri gvhsgpcaag vvgikmpryc lfgdtvntas rmestglplr ihmssstiti lkrtdcqfly evrgetylkg rgtettywlt
1001  gmkdqeynlp spptvenqqr lqtefsdmiv salqkrqasg kksrrptrva sykkgfleym qlnnsdhdst yf
```