



```

LOCUS       Exported                               2935 bp ds-DNA   circular SYN 16-
FEB-2016
DEFINITION  synthetic circular DNA
ACCESSION   .
VERSION     .
KEYWORDS    pGA24
SOURCE      synthetic DNA construct
  ORGANISM  synthetic DNA construct
REFERENCE   1 (bases 1 to 2935)
  AUTHORS   Transomic
  TITLE     Direct Submission
  JOURNAL   Exported Wednesday, Feb 17, 2016 from SnapGene 3.0.3
            http://www.snapgene.com
FEATURES             Location/Qualifiers
     source           1..2935
                     /organism="synthetic DNA construct"
                     /mol_type="other DNA"
     primer_bind      602..618
                     /note="M13 fwd"
                     /note="common sequencing primer, one of multiple
similar            variants"
     promoter         628..646
                     /note="T3 promoter"
                     /note="promoter for bacteriophage T3 RNA polymerase"
     primer_bind      698..714
  
```

```

        /note="KS primer"
        /note="common sequencing primer, one of multiple
similar
        variants"
        promoter      complement(806..824)
                        /note="T7 promoter"
                        /note="promoter for bacteriophage T7 RNA polymerase"
        primer_bind   complement(847..863)
                        /note="M13 rev"
                        /note="common sequencing primer, one of multiple
similar
        protein_bind  871..887
                        /bound_moiety="lac repressor encoded by lacI"
                        /note="lac operator"
                        /note="The lac repressor binds to the lac operator
to
        inhibit transcription in E. coli. This inhibition
can be
        relieved by adding lactose or
        isopropyl-beta-D-thiogalactopyranoside (IPTG)."
        promoter      complement(895..925)
                        /note="lac promoter"
                        /note="promoter for the E. coli lac operon"
        protein_bind  940..961
                        /bound_moiety="E. coli catabolite activator protein"
                        /note="CAP binding site"
                        /note="CAP binding activates transcription in the
presence
        of cAMP."
        rep_origin     complement(1248..1836)
                        /direction=LEFT
                        /note="ori"
                        /note="high-copy-number ColE1/pMB1/pBR322/pUC origin
of
        replication"
        promoter      complement(2808..2912)
                        /gene="bla"
                        /note="AmpR promoter"

```

ORIGIN

```

    1 ctaaattgta agcgtaaata ttttgtaaata attcgcgta aatTTTTgtt
aatcagctc
   61 atTTTTtaac caataggccg aaatcggcaa aatcccttat aaatcaaaag
aatagaccga
  121 gatagggttg agtgttgttc cagtttgtaa caagagtcca ctattaaaga
acgtggactc
  181 caacgtcaaa gggcgaaaaa ccgtctatca gggctatggc ccaactacagg
ccaaccatca
  241 ccctaataca gTTTTTggg gtcgaggtgc cgtaaagcac taaatcggaa
ccctaaaggg
  301 agccccgat ttagagcttg acggggaaag ccggcgaacg tggcgagaaa
ggaagggaag
  361 aaagcgaaa gagcggggcgc tagggcgctg gcaagtgtag cggtcacgct
gcgcgtaacc

```

421 accacacccg cgcgcttaa tgcgccgcta cagggcgctc ccattcgcca  
ttcaggctgc  
481 gcaactgttg ggaagggcgt ttcgggtgcg gcctcttcgc tattacgcca  
gctggcgaaa  
541 ggggatgtg ctgcaaggcg attaagttgg gtaacgccag ggttttccca  
gtcacgacgt  
601 tgtaaacga cggccagtga gcgctcaat taaccctcac taaaggaac  
aaaagctggt  
661 aattaactaa ggtacctggc cggcctgcat gggccctcga ggtcgacggt  
atcgataagc  
721 ttgatatcga attcctgcag ggatccgcc gggctagacg ccggcggccg  
ccaccgctgg  
781 agctcttatg gcgcgccaa ttcgcctat agtgagtcgt attacgtcgc  
gcttggcgta  
841 atcatggtca tagctgtttc ctgtgtgaaa ttgttatccg ctcaaatc  
cacacaacat  
901 acgagccgga agcataaagt gtaaagcctg gggcgcctaa tgagtgcgt  
aactcacatt  
961 aattgcggtg cgctcactgc ccgctttcca gtcgggaaac ctgtcgtgcc  
agctgcatta  
1021 atgaatcggc caacgcgcgg ggagaggcgg tttgcgtatt gggcgtctc  
cgcttcctcg  
1081 ctactgact cgctgcgctc ggtcgttcgg ctgcggcgag cggtatcagc  
tactcaag  
1141 gcggaatac ggttatccac agaatcaggg gataacgcag gaaagaccat  
gtgagcaaaa  
1201 ggccagcaaa aggccaggaa ccgtaaaaag gccgcggtgc tggcgtttt  
ccataggctc  
1261 cgccccctg acgagcatca caaaaatcga cgctcaagtc agagggtggc  
aaacccgaca  
1321 ggactataaa gataccaggc gtttccccct ggaagctccc tcgtgcgctc  
tctgttccg  
1381 accctgccgc ttaccggata cctgtccgcc tttctccctt cgggaagcgt  
ggcgctttct  
1441 catagctcac gctgtaggta tctcagttcg gtgtaggtcg ttcgctccaa  
gctgggctgt  
1501 gtgcacgaac ccccgttca gcccgaccgc tgcgccttat ccgtaacta  
tcgtcttgag  
1561 tccaacccg taagacacga cttatcgcca ctggcagcag ccaactggtaa  
caggattagc  
1621 agagcgaggt atgtaggcgg tgctacagag ttcttgaagt ggtggcctaa  
ctacggctac  
1681 actagaagaa cagtatttgg tatctgcgct ctgctgaagc cagttacct  
cggaaaaaga  
1741 gttggtagct cttgatccgg caaaaaacc accgctggta gcggtggtt  
tttggttgc  
1801 aagcagcaga ttacgcgcag aaaaaagga tctcaagaag atcctttgat  
cttttctacg  
1861 gggctctgacg ctcagtggaa cgaaaactca cgtaagga ttttggtcat  
gagattatca  
1921 aaaaggatct tcacctagat ccttttaaat taaaaatgaa gttttaaatc  
aatctaaagt  
1981 atatatgagt aaacttggtc tgacagttac caatgcttaa tcagtgaggc  
acctatctca

```
2041 gcgatctgtc tatttcgttc atccatagtt gcctgactcc ccgtcgtgta
gataactacg
2101 atacgggagg gcttaccatc tggccccagt gctgcaatga taccgcgaga
accacgctca
2161 ccggctccag atttatcagc aataaaccag ccagccggaa gggccgagcg
cagaagtggg
2221 cctgcaactt tatccgcctc catccagtct attaattggt gccgggaagc
tagagtaagt
2281 agttcgccag ttaatagttt gcgcaacggt gttgccattg ctacaggcat
cgtgggtgtca
2341 cgctcgtcgt ttggtatggc ttcattcagc tccggttccc aacgatcaag
gcgagttaca
2401 tgatcccca tgttgtgcaa aaaagcgggt agctccttcg gtctccgat
cgttgtcaga
2461 agtaagttgg ccgcagtgtt atcactcatg gttatggcag cactgcataa
ttctcttact
2521 gaatagtgta tgcggcgacc gagttgctct tgcccggcgt caatacggga
taataccgcg
2581 ccacatagca gaactttaa agtgctcatc attggaaaac gttcttcggg
gcgaaaactc
2641 tcaaggatct taccgctggt gagatccagt tcgatgtaac ccaactcgtgc
acccaactga
2701 tcttcagcat cttttacttt caccagcgtt tctgggtgag caaaaacagg
aaggcaaat
2761 gccgcaaaaa agggaataag ggcgacacgg aatggtgaa tactcact
cttcctttt
2821 caatattatt gaagcattta tcagggttat tgtctcatga gcggatacat
atttgaatgt
2881 atttagaaaa ataaacaaat aggggttccg cgcacatttc cccgaaaagt gccac
//
```