



LOCUS Exported 5446 bp ds-DNA circular SYN 16-FEB-2016

DEFINITION synthetic circular DNA

ACCESSION .

VERSION .

KEYWORDS pcDNA3.1

SOURCE synthetic DNA construct

ORGANISM synthetic DNA construct

REFERENCE 1 (bases 1 to 5446)

AUTHORS Transomic

TITLE Direct Submission

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FEATURES Location/Qualifiers

source 1..5446  
 /organism="synthetic DNA construct"  
 /mol\_type="other DNA"

enhancer 235..614  
 /note="CMV enhancer"

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    promoter    615..818
                /note="CMV promoter"
                /note="human cytomegalovirus (CMV) immediate early
                promoter"
    primer_bind 778..795
                /note="ORF primer forward"
    promoter    863..881
                /note="T7 promoter"
                /note="promoter for bacteriophage T7 RNA polymerase"
    promoter    complement(998..1016)
                /note="SP6 promoter"
                /note="promoter for bacteriophage SP6 RNA

polymerase"
    polyA_signal 1042..1266
                /note="bGH poly(A) signal"
                /note="bovine growth hormone polyadenylation signal"
    rep_origin   1312..1740
                /direction=RIGHT
                /note="f1 ori"
                /note="f1 bacteriophage origin of replication; arrow
                indicates direction of (+) strand synthesis"
    promoter    1754..2084
                /note="SV40 promoter"
                /note="SV40 enhancer and early promoter"
    rep_origin   1935..2070
                /note="SV40 ori"
                /note="SV40 origin of replication"
    CDS          2151..2945
                /codon_start=1
                /gene="aph(3')-II (or nptII)"
                /product="aminoglycoside phosphotransferase from
Tn5"
                /note="NeoR/KanR"
                /note="confers resistance to neomycin, kanamycin,
and G418
                (Geneticin(R)) "

/translation="MIEQDGLHAGSPAAWVERLFGYDWAQQTIGCSDAAVFRLSAQGRP
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GLAPAEFLFARLKARMPDGEDLVVTHGDACLPNIMVENGRFSGFIDCGRLGVADRYQDIA
    polyA_signal 3119..3240
                /note="SV40 poly(A) signal"
                /note="SV40 polyadenylation signal"
    primer_bind  complement(3289..3305)
                /note="M13 rev"
                /note="common sequencing primer, one of multiple
similar

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    protein_bind    variants"
                   3313..3329
                   /bound_moiety="lac repressor encoded by lacI"
                   /note="lac operator"
                   /note="The lac repressor binds to the lac operator
to
can be
                   inhibit transcription in E. coli. This inhibition
                   relieved by adding lactose or
                   isopropyl-beta-D-thiogalactopyranoside (IPTG)."
    promoter       complement(3337..3367)
                   /note="lac promoter"
                   /note="promoter for the E. coli lac operon"
    protein_bind    3382..3403
                   /bound_moiety="E. coli catabolite activator protein"
                   /note="CAP binding site"
                   /note="CAP binding activates transcription in the
presence
of
    rep_origin     complement(3691..4279)
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                   /note="ori"
                   /note="high-copy-number ColE1/pMB1/pBR322/pUC origin
of
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                   /codon_start=1
                   /gene="bla"
                   /product="beta-lactamase"
                   /note="AmpR"
                   /note="confers resistance to ampicillin,
carbenicillin, and
                   related antibiotics"

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    promoter       complement(5311..5415)
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