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LOCUS       Exported                               3519 bp ds-DNA   circular SYN 01-
MAR-2013
DEFINITION Parental vector for TOPO(R) cloning of blunt PCR products.
ACCESSION  .
VERSION    .
KEYWORDS   pCR-Blunt II-TOPO
SOURCE     synthetic DNA construct
  ORGANISM synthetic DNA construct
REFERENCE  1 (bases 1 to 3519)
  AUTHORS  Invitrogen (Life Technologies)
  TITLE    Direct Submission
  JOURNAL  Exported Wednesday, Feb 17, 2016 from SnapGene 3.0.3
           http://www.snapgene.com
FEATURES   Location/Qualifiers
     source          1..3519
                   /organism="synthetic DNA construct"
                   /lab_host="Escherichia coli"
                   /mol_type="other DNA"
     protein_bind    107..128
                   /bound_moiety="E. coli catabolite activator protein"
                   /note="CAP binding site"
                   /note="CAP binding activates transcription in the
presence     of cAMP."
     promoter        143..173
                   /note="lac promoter"
  
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protein_bind    /note="promoter for the E. coli lac operon"
                181..197
                /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)."
primer_bind     205..221
                /note="M13 rev"
                /note="common sequencing primer, one of multiple
similar
                variants"
CDS             217..576
                /codon_start=1
                /gene="lacZ (fragment)"
                /product="LacZ-alpha fragment of beta-galactosidase"
                /note="lacZ-alpha"

/translation="MTMITPSYLGDTIEYSSYASSLVSSDPLVTAASVLEFALKGEFC
RYPShwrplehasrgpnsPysesYynslavvlQRRDwENPGVTQLNRLAAHPPFASWRN
SEEARTDRPSQQLRSL"
promoter       239..257
                /note="SP6 promoter"
                /note="promoter for bacteriophage SP6 RNA
polymerase"
promoter       complement(407..425)
                /note="T7 promoter"
                /note="promoter for bacteriophage T7 RNA polymerase"
primer_bind    complement(432..448)
                /note="M13 fwd"
                /note="common sequencing primer, one of multiple
similar
                variants"
CDS            586..888
                /codon_start=1
                /gene="ccdB"
                /product="CcdB, a bacterial toxin that poisons DNA
gyrase"
                /note="ccdB"
                /note="Plasmids containing the ccdB gene cannot be
                propagated in standard E. coli strains."

/translation="QFKVYTYKRESRYRLFVDVQSDIIDTPGRRMVIPLASARLLSDKV
SRELYPVVHIGDESWRMMTTDMASVPVSVIGEEVADLSHRENDIKNAINLMFWGI"
CDS            1237..2031
                /codon_start=1
                /gene="aph(3')-II (or nptII)"
                /product="aminoglycoside phosphotransferase from
Tn5"

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                                /note="NeoR/KanR"
                                /note="confers resistance to neomycin, kanamycin,
and G418
                                (Geneticin (R)) "

/translation="MIEQDGLHAGSPAAWVERLFGYDWAQQTIGCSDAAVFRLSAQGRP
VLFVKTDLSGALNELQDEAARLSWLATTGVPCA AVL DVVTEAGRDWLLLGEVPGDLLS
SHLAPA EKVSIMADAMRR LHTLDPATCFD HQAKHRIERARTRMEAGLVDQDDLDEEHQ
GLAPAE L FARLKASMPDGEDLVVTHGDA CLPNIMVENGRFSGFIDCGRLGVADRYQDIA
                                LATRDIAEELGG EWADRFLVLYGIAAPDSQRIAFYRLLEFF"
                                CDS
                                2238..2612
                                /codon_start=1
                                /gene="Sh ble from Streptoalloteichus hindustanus"
                                /product="antibiotic-binding protein"
                                /note="BleoR"
                                /note="confers resistance to bleomycin, phleomycin,
and
                                Zeocin(TM) "

/translation="MAKLTS AVPVL TARDVAGAVEFWTDRLGFSRDFVEDDFAGVVRDD
VTLFISAVQDQVVPDNTLAWVWVRGLDELYAEWSEVVSTNFRDASGPAMTEIGEQPWGR
                                EFALRDPAGNCVHFVAEEQD"
                                rep_origin
                                2750..3338
                                /direction=RIGHT
                                /note="ori"
                                /note="high-copy-number Cole1/pMB1/pBR322/pUC origin
of
                                replication"
ORIGIN
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tgcagctggc
    61 acgacaggtt tcccgactgg aaagcgggca gtgagcgcaa cgcaattaat
gtgagttagc
    121 tcaactcatta ggcaccccag gctttacact ttatgcttcc ggctcgtatg
ttgtgtggaa
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cagatatcca
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//
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