

LOCUS pUC19_T1KO_vecto 7001 bp T1KO DNA

vecto 27-APR-2014

DEFINITION Concatenation of 7 sequences.

ACCESSION urn.local...1317843251376.24

VERSION urn.local...1317843251376.24

KEYWORDS .

SOURCE

ORGANISM

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UNIMARK pUC19 T1KO vecto features
pUC19 T1KO vecto

ORIGIN

Features

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/organism="Cloning vector pUC19"
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/label="source Cloning vector pUC19"

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/note="Geneious type: Concatenated sequence"

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/5'overhang=""
/3'overhang=""
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/3'strand="direct"
/5'type="blunt"
/3'type="blunt"
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/ugene_group="fragments"

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/annotation_group="CATATG"
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/note="Geneious type: restriction site"

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misc_feature 183..188

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/annotation_group="CATATG"

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/note="Geneious type: restriction site"

misc_feature 245..255

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misc_feature 396..415

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/note="multiple cloning site (EcoRI-HindIII)"

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/note="Geneious type: Concatenated sequence"

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/note="Geneious type: Concatenated sequence"

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/isDeprecated=0

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gene 609..1061

/Source="annotation"

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/label="DHFR-HXGPRT"	
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/note="Geneious type: Editing History Insertion"	
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/note="Geneious type: primer_bind_reverse"	
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misc_feature	3437..3442

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 /label="UTR"
 /ugene_name="UTR"

gene 3443..4284
 /Source="annotation"
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 N-acetylgalactosaminyltransferase T1, putative"
 /soTerm="protein_coding"
 /product="UDP-N-acetyl-D-galactosamine:polypeptide
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 /mol_type="other DNA"
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misc_feature 4724..4727
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/note="Geneious type: Concatenated sequence"
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RPSQQLRSLNGEWRLMRYFLLTHLCGISHRIWCTLSTICSDAA"
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/note="Geneious type: Concatenated sequence"
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/Recognition_pattern="G^TCGAC"

/annotation_group="GTCGAC"

/label="SalI"

/note="Geneious type: restriction site"

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/annotation_group="CTGCAG"

/label="PstI"

/note="Geneious type: restriction site"

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/annotation_group="AAGCTT"

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/note="Geneious type: restriction site"

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/label="M13R"

/note="Geneious type: primer_bind_reverse"

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counter-clockwise); TATGTT"

/label="-10 signal"

-35_signal complement(4853..4858)

/note="Plac promoter (drives lacZalpha;
counter-clockwise); TTTACA"

/label="-35 signal"

protein_bind complement(4878..4890)

/note="CAP protein binding site"

/bound_moiety="catabolite activator protein (CAP)"

/label="CAP protein binding site protein bind"

rep_origin complement(5182..5770)

/note="pMB1 origin of replication (counter-clockwise)
(RNAII -35 to RNA/DNA switch point)"

/label="rep origin"

misc_RNA complement(5182..5734)

/note="RNAII transcript (complementary strand)"

/label="RNA"

-35_signal 5588..5593

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/label="RNAI promoter (clockwise); GCTACA -10 signal"
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/label="RNAI transcript"
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/note="RNAII promoter (counter-clockwise); CGTAAT"
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-35_signal          complement(5765..5770)
/note="RNAII promoter (counter-clockwise); TTGAGA"
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gene                  complement(5941..6801)
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misc_feature         6128..6138
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/annotation_group="GCCNNNNNGGC"
/label="BglI"
/note="Geneious type: restriction site"
sig_peptide          complement(6733..6801)
/gene="bla"
/note="required for secretion to the periplasm; cleaved
off to form the mature beta-lactamase protein."
/label="bla signal peptide"
-10_signal          complement(6845..6850)
/note="bla promoter (counter-clockwise); GAGACA"
/label="-10 signal"
-35_signal          complement(6866..6871)
/note="bla promoter (counter-clockwise); TTCAA"

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2010 2020 2030 2040
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7010 7020 7030 7040



C 7001

LOCUS pUC19_T2KO_vecto 6691 bp DNA

circular UNA 17-DEC-2012

DEFINITION Concatenation of 5 sequences.

ACCESSION urn.local...1317875701146.8

VERSION urn.local...1317875701146.8

KEYWORDS .

SOURCE

ORGANISM

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ORIGIN

Features

source 1..415
/organism="Cloning vector pUC19"
/mol_type="other DNA"
/label="source Cloning vector pUC19"

CDS complement(146..415)
/gene="lacZalpha"
/codon_start=1
/product="beta-galactosidase alpha fragment"
/translation="MTMITPSLHACRSTLEDPRVPSNSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNGEWRLMRYFLLTHLCGISHS
STICSDAA"
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gene complement(146..415)
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misc_feature 183..188
/Recognition_pattern="CA^TATG"
/annotation_group="CATATG"
/label="NdeI"
/note="Geneious type: restriction site"

misc_feature 245..255
/Recognition_pattern="GCCNNNN^NGGC"
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/note="Geneious type: restriction site"

misc_feature complement(391..415)
/created_by="User"
/label="pUC19productionR-Smi"
/note="Geneious type: primer_bind_reverse"

misc_feature 396..415
/gene="lacZalpha"
/note="multiple cloning site (EcoRI-HindIII)"
/label="lacZalpha misc"

misc_feature 396..401
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primer_bind 401..440

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/label="lacZalpha misc"

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/annotation_group="GAATTC"
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/note="Geneious type: restriction site"

primer_bind 401..440
/created_by="User"
/label="T2ko-5'F w/adp"

misc_feature 402..407
/Recognition_pattern="GAGCT^C"
/annotation_group="GAGCTC"
/label="SacI"
/note="Geneious type: restriction site"

misc_feature 412..415
/created_by="User"
/modified_by="User"
/label="SmiI5"
/note="Geneious type: restriction_site"

misc_feature 416..419
/created_by="User"
/label="Smi3"
/note="Geneious type: restriction_site"

misc_recomb 420..1336
/created_by="User"
/label="5'Recomb"

primer_bind 420..440
/created_by="User"
/label="T2ko-5'F"

misc_feature complement(1315..1351)
/created_by="User"
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/label="T2ko-5'R w/adp"
/note="Geneious type: primer_bind_reverse"

primer_bind complement(1315..1336)
/created_by="User"
/label="T2ko-5'R"

misc_feature 1337..1342
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/label="KpnI"
/note="Geneious type: restriction_site"

primer_bind	1337..1363
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/label="HXGPRT-KpnIF"	
gene	1343..3272
/created_by="User"	
/label="DHFR-HXGPRT"	
misc_feature	complement(1556..1578)
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/label="5ex2R"	
/note="Geneious type: primer_bind_reverse"	
misc_feature	1805..1807
/Original_Bases	
/label	
/note="Geneious type: Editing History Insertion"	
Selectable_Mark	1811..2503
/label="HXGPRT"	
primer	1818..1837
/note="Oligo predicted by CLC primer designer"	
/note="Oligo type: primer"	
/note="Melting temp.: 56.07"	
/label="HXGPRT detection"	
primer	complement(2533..2554)
/note="Oligo predicted by CLC primer designer"	
/note="Oligo type: primer"	
/note="Melting temp.: 54.02"	
/label="HXGPRT detection"	
misc_feature	complement(3256..3276)
/created_by="User"	
/label="HXGPRT-KpnIR"	
/note="Geneious type: primer_bind_reverse"	
primer_bind	3262..3297
/created_by="User"	
/label="T2ko-3'F w/adp"	
misc_feature	3271..3276
/created_by="User"	
/modified_by="User"	
/label="KpnI"	
/note="Geneious type: restriction_site"	
misc_recomb	3277..4413
/created_by="User"	
/modified_by="User"	
/label="3'Recomb"	

primer_bind 3277..3297

/created_by="User"

/label="T2ko-3'F"

gene 3277..3840

/Source="annotation"

/Note="UDP-N-acetyl-D-galactosamine:polypeptide

N-acetylgalactosaminyltransferase T2"

/soTerm="protein_coding"

/product="UDP-N-acetyl-D-galactosamine:polypeptide

N-acetylgalactosaminyltransferase T2"

/taxon="Toxoplasma gondii ME49"

/isDeprecated=0

/isPseudo=0

/label="TGME49_058770"

UTR 3277..3840

/Source="annotation"

/isDeprecated=0

/label="UTR"

misc_feature complement(4393..4432)

/created_by="User"

/label="T2ko-3'R w/adpt"

/note="Geneious type: primer_bind_reverse"

primer_bind complement(4393..4413)

/created_by="User"

/label="T2ko-3'R"

misc_feature 4414..4417

/created_by="User"

/label="Smi5"

/note="Geneious type: restriction_site"

misc_feature 4418..4457

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

source 4418..6691

/organism="Cloning vector pUC19"

/mol_type="other DNA"

/label="source Cloning vector pUC19"

CDS complement(4418..4474)

/gene="lacZalpha"

/codon_start=1

/product="beta-galactosidase alpha fragment"

/translation="MTMITPSLHACRSTLEDPRVPSSNSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTD"

RPSQQLRSLNGEWRLMRYFLLTHLCGISHRIWCTLSTICSDAA"

/label="lacZalpha CDS"

gene complement(4418..4474)

/gene="lacZalpha"

/label="lacZalpha gene"

misc_feature 4418..4421

/created_by="User"

/modified_by="User"

/label="SmiI3"

/note="Geneious type: restriction_site"

primer_bind 4418..4443

/created_by="User"

/label="pUC19productionF-Smi"

misc_feature 4422..4427

/Recognition_pattern="G^GATCC"

/annotation_group="GGATCC"

/label="BamHI"

/note="Geneious type: restriction site"

misc_feature 4428..4433

/Recognition_pattern="T^CTAGA"

/annotation_group="TCTAGA"

/label="XbaI"

/note="Geneious type: restriction site"

misc_feature 4434..4439

/Recognition_pattern="G^TCGAC"

/annotation_group="GTCGAC"

/label="SaiI"

/note="Geneious type: restriction site"

misc_feature 4440..4445

/Recognition_pattern="CTGCA^G"

/annotation_group="CTGCAG"

/label="PstI"

/note="Geneious type: restriction site"

misc_feature 4452..4457

/Recognition_pattern="A^AGCTT"

/annotation_group="AAGCTT"

/label="HindIII"

/note="Geneious type: restriction site"

-10_signal complement(4519..4524)

/note="Plac promoter (drives lacZalpha;
 counter-clockwise); TATGTT"

/label="-10 signal"

-35_signal complement(4543..4548)

/note="Plac promoter (drives lacZalpha;
 counter-clockwise); TTTACA"

/label="-35 signal"

protein_bind complement(4568..4580)

/note="CAP protein binding site"

/bound_moiety="catabolite activator protein (CAP)"

/label="CAP protein binding site protein bind"

rep_origin complement(4872..5460)

/note="pMB1 origin of replication (counter-clockwise)
 (RNAII -35 to RNA/DNA switch point)"

/label="rep origin"

misc_RNA complement(4872..5424)

/note="RNAII transcript (complementary strand)"

/label="RNA"

-35_signal 5278..5283

/note="RNAI promoter (clockwise); TTGAAG"

/label="RNAI promoter (clockwise); TTGAAG -35 signal"

-10_signal 5300..5305

/note="RNAI promoter (clockwise); GCTACA"

/label="RNAI promoter (clockwise); GCTACA -10 signal"

misc_RNA 5314..5421

/note="RNAI transcript"

/label="RNAI transcript"

-10_signal complement(5434..5439)

/note="RNAII promoter (counter-clockwise); CGTAAT"

/label="-10 signal"

-35_signal complement(5455..5460)

/note="RNAII promoter (counter-clockwise); TTGAGA"

/label="-35 signal"

CDS complement(5631..6491)

/gene="bla"

/note="ampR (confers resistance to ampicillin)"

/codon_start=1

/product="beta-lactamase"

/translation="MSIQHFRVALIPFFAAAFCLPVFAHPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERF
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 PKELTAF LHNMGDHSVTRLDRWEPELNEAIPNDERDTTMPVAMATTLRKLTLGELLTLASRQQLIDWMEADKVAGPLL
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/label="bla CDS"

gene complement(5631..6491)

/gene="bla"


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LOCUS pUC19_T3KO_vecto 6864 bp DNA

circular UNA 17-DEC-2012

DEFINITION Concatenation of 5 sequences.

ACCESSION urn.local...1317877093660.24

VERSION urn.local...1317877093660.24

KEYWORDS .

SOURCE
ORGANISM

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ORIGIN

Features

source

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/organism="Cloning vector pUC19"

/mol_type="other DNA"

/label="source Cloning vector pUC19"

misc_feature 1..419

/label="pUC19 5' (concatenated sequence 1)"

/note="Geneious type: Concatenated sequence"

CDS complement(146..415)

/gene="lacZalpha"

/codon_start=1

/product="beta-galactosidase alpha fragment"

/translation="MTMITPSLHACRSTLEDPRVPSSNSLAVVLQRRDWNPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNGEWRLMRYFLLTHLCGISHTICSDAA"

/label="lacZalpha CDS"

gene complement(146..415)

/gene="lacZalpha"

/label="lacZalpha gene"

misc_feature 183..188

/Recognition_pattern="CA^TATG"

/annotation_group="CATATG"

/label="NdeI"

/note="Geneious type: restriction site"

misc_feature 245..255

/Recognition_pattern="GCCNNNN^NGGC"

/annotation_group="GCCNNNNNGGC"

/label="BglI"

/note="Geneious type: restriction site"

misc_feature complement(391..415)

/created_by="User"

/label="pUC19productionR-Smi"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

/label="EcoRI"

/note="Geneious type: restriction site"

primer_bind 401..440

/created_by="User"

/label="T3ko-5'F w/adp"

misc_feature 402..407

/Recognition_pattern="GAGCT^C"

/annotation_group="GAGCTC"

/label="SacI"

/note="Geneious type: restriction site"

misc_feature 412..415

/created_by="User"

/modified_by="User"

/label="SmiI5"

/note="Geneious type: restriction_site"

misc_feature 416..419

/Original_Bases

/label

/note="Geneious type: Editing History Insertion"

misc_feature 416..419

/created_by="User"

/label="Smi3"

/note="Geneious type: restriction_site"

misc_recomb 420..1465

/created_by="User"

/label="5'Recomb"

misc_feature 420..1465

/label="T3ko - 5'Recomb (concatenated sequence 2)"

/note="Geneious type: Concatenated sequence"

primer_bind 420..440

/created_by="User"

/label="T3ko-5'F"

misc_feature complement(1445..1480)

/created_by="User"

/label="T3ko-5'R w/adp"
/note="Geneious type: primer_bind_reverse"

misc_feature complement(1445..1465)
/created_by="User"
/label="T3ko-5'R"
/note="Geneious type: primer_bind_reverse"

misc_feature 1466..3405
/label="HXGPRT w/ KpnI (concatenated sequence 3)"
/note="Geneious type: Concatenated sequence"

primer_bind 1466..1492
/created_by="User"
/label="HXGPRT-KpnIF"

misc_feature 1466..1471
/created_by="User"
/label="KpnI"
/note="Geneious type: restriction_site"

gene 1472..3401
/created_by="User"
/label="DHFR-HXGPRT"

misc_feature complement(1685..1707)
/created_by="User"
/label="5ex2R"
/note="Geneious type: primer_bind_reverse"

misc_feature 1934..1936
/Original_Bases
/label
/note="Geneious type: Editing History Insertion"

Selectable_Mark 1940..2632
/label="HXGPRT"

primer 1947..1966
/note="Oligo predicted by CLC primer designer"
/note="Oligo type: primer"
/note="Melting temp.: 56.07"
/label="HXGPRT detection"

primer complement(2662..2683)
/note="Oligo predicted by CLC primer designer"
/note="Oligo type: primer"
/note="Melting temp.: 54.02"
/label="HXGPRT detection"

misc_feature complement(3385..3405)
/created_by="User"
/label="HXGPRT-KpnIR"

/note="Geneious type: primer_bind_reverse"	
primer_bind	3391..3426
/created_by="User"	
/modified_by="User"	
/label="T3ko-3'F w/adp"	
misc_feature	3400..3405
/created_by="User"	
/modified_by="User"	
/label="KpnI"	
/note="Geneious type: restriction_site"	
misc_recomb	3406..4586
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/label="3'Recomb"	
misc_feature	3406..4586
/label="T3ko - 3'Recomb (concatenated sequence 4)"	
/note="Geneious type: Concatenated sequence"	
primer_bind	3406..3426
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/modified_by="User"	
/label="T3ko-3'F"	
gene	3406..3859
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/Note="UDP-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T3, putative"	
/soTerm="protein_coding"	
/product="UDP-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase T3, putative"	
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/isDeprecated=0	
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/label="TGME49_118730"	
UTR	3406..3859
/Source="annotation"	
/isDeprecated=0	
/label="UTR"	
misc_feature	complement(4566..4605)
/created_by="User"	
/label="T3ko-3'R w/adp"	
/note="Geneious type: primer_bind_reverse"	
misc_feature	complement(4566..4586)
/created_by="User"	
/label="T3ko-3'R"	

/note="Geneious type: primer_bind_reverse"

misc_feature 4587..4590

/Original_Bases

/label

/note="Geneious type: Editing History Insertion"

misc_feature 4587..6864

/label="pUC19 3' (concatenated sequence 5)"

/note="Geneious type: Concatenated sequence"

misc_feature 4587..4590

/created_by="User"

/label="Smi5"

/note="Geneious type: restriction_site"

misc_feature 4591..4630

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

source 4591..6864

/organism="Cloning vector pUC19"

/mol_type="other DNA"

/label="source Cloning vector pUC19"

CDS complement(4591..4647)

/gene="lacZalpha"

/codon_start=1

/product="beta-galactosidase alpha fragment"

/translation="MTMITPSLHACRSTLEDPRVPSSNSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTD
RPSQQLRSLNGEWRLMRYFLLTHLCGISHRIWCTLSTICSDAA"

/label="lacZalpha CDS"

gene complement(4591..4647)

/gene="lacZalpha"

/label="lacZalpha gene"

primer_bind 4591..4616

/created_by="User"

/label="pUC19productionF-Smi"

misc_feature 4591..4594

/created_by="User"

/modified_by="User"

/label="SmiI3"

/note="Geneious type: restriction_site"

misc_feature 4595..4600

/Recognition_pattern="G^GATCC"

/annotation_group="GGATCC"

/label="BamHI"

/note="Geneious type: restriction site"

misc_feature 4601..4606

/Recognition_pattern="T^CTAGA"

/annotation_group="TCTAGA"

/label="XbaI"

/note="Geneious type: restriction site"

misc_feature 4607..4612

/Recognition_pattern="G^TCGAC"

/annotation_group="GTCGAC"

/label="SallI"

/note="Geneious type: restriction site"

misc_feature 4613..4618

/Recognition_pattern="CTGCA^G"

/annotation_group="CTGCAG"

/label="PstI"

/note="Geneious type: restriction site"

misc_feature 4625..4630

/Recognition_pattern="A^AGCTT"

/annotation_group="AAGCTT"

/label="HindIII"

/note="Geneious type: restriction site"

-10_signal complement(4692..4697)

/note="Plac promoter (drives lacZalpha;
 counter-clockwise); TATGTT"

/label="-10 signal"

-35_signal complement(4716..4721)

/note="Plac promoter (drives lacZalpha;
 counter-clockwise); TTTACA"

/label="-35 signal"

protein_bind complement(4741..4753)

/note="CAP protein binding site"

/bound_moiety="catabolite activator protein (CAP)"

/label="CAP protein binding site protein bind"

rep_origin complement(5045..5633)

/note="pMB1 origin of replication (counter-clockwise)
 (RNAII -35 to RNA/DNA switch point)"

/label="rep origin"

misc_RNA complement(5045..5597)

/note="RNAII transcript (complementary strand)"

/label="RNA"

-35_signal 5451..5456

/note="RNAI promoter (clockwise); TTGAAG"

/label="RNAI promoter (clockwise); TTGAAG -35 signal"

-10_signal 5473..5478

/note="RNAI promoter (clockwise); GCTACA"

/label="RNAI promoter (clockwise); GCTACA -10 signal"

misc_RNA 5487..5594

/note="RNAI transcript"

/label="RNAI transcript"

-10_signal complement(5607..5612)

/note="RNAII promoter (counter-clockwise); CGTAAT"

/label="-10 signal"

-35_signal complement(5628..5633)

/note="RNAII promoter (counter-clockwise); TTGAGA"

/label="-35 signal"

CDS complement(5804..6664)

/gene="bla"

/note="ampR (confers resistance to ampicillin)"

/codon_start=1

/product="beta-lactamase"

/translation="MSIQHFRVALIPFFAAFCPLVFAHPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERF
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 PKELTAF LHNMGDHSVTRLDRWEP ELPNEAIPNDRDRTTMPVAMATTLRKL LTGELLTLASRQQLIDWMEADKVAGPLL
 RSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIAEIGASLIKHW"

/label="bla CDS"

gene complement(5804..6664)

/gene="bla"

/label="bla gene"

misc_feature 5991..6001

/Recognition_pattern="GCCNNNN^NGGC"

/annotation_group="GCCNNNNNGGC"

/label="BglI"

/note="Geneious type: restriction site"

sig_peptide complement(6596..6664)

/gene="bla"

/note="required for secretion to the periplasm; cleaved
 off to form the mature beta-lactamase protein."

/label="bla signal peptide"

-10_signal complement(6708..6713)

/note="bla promoter (counter-clockwise); GAGACA"

/label="-10 signal"

-35_signal complement(6729..6734)

/note="bla promoter (counter-clockwise); TTCAAA"

/label="-35 signal"


```
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LOCUS pUC19_T4KO_vecto 7070 bp DNA

circular UNA 17-DEC-2012

DEFINITION Concatenation of 5 sequences.

ACCESSION urn.local...1317877761435.35

VERSION urn.local...1317877761435.35

KEYWORDS .

SOURCE
ORGANISM

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ORIGIN

Features

source

1..415

/organism="Cloning vector pUC19"

/mol_type="other DNA"

/label="source Cloning vector pUC19"

misc_feature 1..419

/label="pUC19 5' (concatenated sequence 1)"

/note="Geneious type: Concatenated sequence"

CDS complement(146..415)

/gene="lacZalpha"

/codon_start=1

/product="beta-galactosidase alpha fragment"

/translation="MTMITPSLHACRSTLEDPRVPSSNSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNGEWRLMRYFLLTHLCGISHTICSDAA"

/label="lacZalpha CDS"

gene complement(146..415)

/gene="lacZalpha"

/label="lacZalpha gene"

misc_feature 183..188

/Recognition_pattern="CA^TATG"

/annotation_group="CATATG"

/label="NdeI"

/note="Geneious type: restriction site"

misc_feature 245..255

/Recognition_pattern="GCCNNNN^NGGC"

/annotation_group="GCCNNNNNGGC"

/label="BglI"

/note="Geneious type: restriction site"

misc_feature complement(391..415)

/created_by="User"

/label="pUC19productionR-Smi"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

/label="EcoRI"

/note="Geneious type: restriction site"

primer_bind 401..440

/created_by="User"

/label="T4ko-5'F w/adp"

misc_feature 402..407

/Recognition_pattern="GAGCT^C"

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/note="Geneious type: restriction site"

misc_feature 412..415

/created_by="User"

/modified_by="User"

/label="SmiI5"

/note="Geneious type: restriction_site"

misc_feature 416..419

/Original_Bases

/label

/note="Geneious type: Editing History Insertion"

misc_feature 416..419

/created_by="User"

/label="Smi3"

/note="Geneious type: restriction_site"

misc_recomb 420..1687

/created_by="User"

/label="5'Recomb"

misc_feature 420..1687

/label="T4ko - 5'Recomb (concatenated sequence 2)"

/note="Geneious type: Concatenated sequence"

primer_bind 420..440

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/label="T4ko-5'F"

misc_feature complement(1667..1702)

/created_by="User"

/label="T4ko-5'R w/adp"
/note="Geneious type: primer_bind_reverse"

misc_feature complement(1667..1687)
/created_by="User"
/label="T4ko-5'R"
/note="Geneious type: primer_bind_reverse"

misc_feature 1688..3627
/label="HXGPRT w/ KpnI (concatenated sequence 3)"
/note="Geneious type: Concatenated sequence"

primer_bind 1688..1714
/created_by="User"
/label="HXGPRT-KpnIF"

misc_feature 1688..1693
/created_by="User"
/label="KpnI"
/note="Geneious type: restriction_site"

gene 1694..3623
/created_by="User"
/label="DHFR-HXGPRT"

misc_feature complement(1907..1929)
/created_by="User"
/label="5ex2R"
/note="Geneious type: primer_bind_reverse"

misc_feature 2156..2158
/Original_Bases
/label
/note="Geneious type: Editing History Insertion"

Selectable_Mark 2162..2854
/label="HXGPRT"

primer 2169..2188
/note="Oligo predicted by CLC primer designer"
/note="Oligo type: primer"
/note="Melting temp.: 56.07"
/label="HXGPRT detection"

primer complement(2884..2905)
/note="Oligo predicted by CLC primer designer"
/note="Oligo type: primer"
/note="Melting temp.: 54.02"
/label="HXGPRT detection"

misc_feature complement(3607..3627)
/created_by="User"
/label="HXGPRT-KpnIR"

/note="Geneious type: primer_bind_reverse"

primer_bind 3613..3648

/created_by="User"

/label="T4ko-3'F w/adp"

misc_feature 3622..3627

/created_by="User"

/modified_by="User"

/label="KpnI"

/note="Geneious type: restriction_site"

misc_recomb 3628..4792

/created_by="User"

/label="3'Recomb"

misc_feature 3628..4792

/label="T4ko - 3'Recomb (concatenated sequence 4)"

/note="Geneious type: Concatenated sequence"

primer_bind 3628..3648

/created_by="User"

/label="T4ko-3'F"

misc_feature complement(4772..4811)

/created_by="User"

/label="T4ko-3'R w/adp"

/note="Geneious type: primer_bind_reverse"

misc_feature complement(4772..4792)

/created_by="User"

/modified_by="User"

/label="T4ko-3'R"

/note="Geneious type: primer_bind_reverse"

misc_feature 4793..4796

/Original_Bases

/label

/note="Geneious type: Editing History Insertion"

misc_feature 4793..7070

/label="pUC19 3' (concatenated sequence 5)"

/note="Geneious type: Concatenated sequence"

misc_feature 4793..4796

/created_by="User"

/label="Smi5"

/note="Geneious type: restriction_site"

misc_feature 4797..4836

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

source 4797..7070
/organism="Cloning vector pUC19"
/mol_type="other DNA"
/label="source Cloning vector pUC19"

CDS complement(4797..4853)
/gene="lacZalpha"
/codon_start=1
/product="beta-galactosidase alpha fragment"
/translation="MTMITPSLHACRSTLEDPRVPSNSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTD
RPSQQLRSLNGEWRLMRYFLLTHLCGISHRIWCTLSTICSDAA"
/label="lacZalpha CDS"

gene complement(4797..4853)
/gene="lacZalpha"
/label="lacZalpha gene"

primer_bind 4797..4822
/created_by="User"
/label="pUC19productionF-Smi"

misc_feature 4797..4800
/created_by="User"
/modified_by="User"
/label="SmiI3"
/note="Geneious type: restriction_site"

misc_feature 4801..4806
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/annotation_group="GGATCC"
/label="BamHI"
/note="Geneious type: restriction site"

misc_feature 4807..4812
/Recognition_pattern="T^CTAGA"
/annotation_group="TCTAGA"
/label="XbaI"
/note="Geneious type: restriction site"

misc_feature 4813..4818
/Recognition_pattern="G^TCGAC"
/annotation_group="GTCGAC"
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/note="Geneious type: restriction site"

misc_feature 4819..4824
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/label="PstI"
/note="Geneious type: restriction site"

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/annotation_group="AAGCTT"
/label="HindIII"
/note="Geneious type: restriction site"
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counter-clockwise); TATGTT"
/label="-10 signal"
-35_signal            complement(4922..4927)
/note="Plac promoter (drives lacZalpha;
counter-clockwise); TTTACA"
/label="-35 signal"
protein_bind          complement(4947..4959)
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/bound_moiety="catabolite activator protein (CAP)"
/label="CAP protein binding site protein bind"
rep_origin            complement(5251..5839)
/note="pMB1 origin of replication (counter-clockwise)
(RNAII -35 to RNA/DNA switch point)"
/label="rep origin"
misc_RNA              complement(5251..5803)
/note="RNAII transcript (complementary strand)"
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-35_signal            5657..5662
/note="RNAI promoter (clockwise); TTGAAG"
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-10_signal            5679..5684
/note="RNAI promoter (clockwise); GCTACA"
/label="RNAI promoter (clockwise); GCTACA -10 signal"
misc_RNA              5693..5800
/note="RNAI transcript"
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-10_signal            complement(5813..5818)
/note="RNAII promoter (counter-clockwise); CGTAAT"
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-35_signal            complement(5834..5839)
/note="RNAII promoter (counter-clockwise); TTGAGA"
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CDS                   complement(6010..6870)
/gene="bla"
/note="ampR (confers resistance to ampicillin)"
  
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LOCUS pUC19_T5KO_vecto 7084 bp DNA

circular UNA 17-DEC-2012

DEFINITION Concatenation of 5 sequences.

ACCESSION urn.local...1317878330916.46

VERSION urn.local...1317878330916.46

KEYWORDS .

SOURCE
ORGANISM

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ORIGIN

Features

source

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/organism="Cloning vector pUC19"

/mol_type="other DNA"

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misc_feature 1..419

/label="pUC19 5' (concatenated sequence 1)"

/note="Geneious type: Concatenated sequence"

CDS complement(146..415)

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/codon_start=1

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/translation="MTMITPSLHACRSTLEDPRVPSSNSLAVVLQRRDWNPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNGEWRLMRYFLLTHLCGISHP
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gene complement(146..415)

/gene="lacZalpha"

/label="lacZalpha gene"

misc_feature 183..188

/Recognition_pattern="CA^TATG"

/annotation_group="CATATG"

/label="NdeI"

/note="Geneious type: restriction site"

misc_feature 245..255

/Recognition_pattern="GCCNNNN^NGGC"

/annotation_group="GCCNNNNNGGC"

/label="BglI"

/note="Geneious type: restriction site"

misc_feature complement(391..415)

/created_by="User"

/label="pUC19productionR-Smi"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

/note="Geneious type: primer_bind_reverse"

misc_feature 396..415

/gene="lacZalpha"

/note="multiple cloning site (EcoRI-HindIII)"

/label="lacZalpha misc"

misc_feature 396..401

/Recognition_pattern="G^AATTC"

/annotation_group="GAATTC"

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/note="Geneious type: restriction site"

primer_bind 401..440

/created_by="User"

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/label="T5ko-5'F w/adp"

misc_feature 402..407

/Recognition_pattern="GAGCT^C"

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/note="Geneious type: restriction site"

misc_feature 412..415

/created_by="User"

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/note="Geneious type: restriction_site"

misc_feature 416..419

/Original_Bases

/label

/note="Geneious type: Editing History Insertion"

misc_feature 416..419

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/label="Smi3"

/note="Geneious type: restriction_site"

misc_recomb 420..1648

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/label="5'Recomb"

misc_feature 420..1648

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/note="Geneious type: Concatenated sequence"

primer_bind 420..440

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/label="T5ko-5'F"

gene 420..805

/Source="annotation"
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/soTerm="protein_coding"
/product="multiprotein bridging factor type 1, putative"
/taxon="Toxoplasma gondii ME49"
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UTR 420..805

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misc_feature complement(1628..1663)

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/note="Geneious type: primer_bind_reverse"

misc_feature complement(1628..1648)

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/note="Geneious type: primer_bind_reverse"

misc_feature 1649..3588

/label="HXGPRT w/ KpnI (concatenated sequence 3)"
/note="Geneious type: Concatenated sequence"

misc_feature 1649..1654

/created_by="User"
/label="KpnI"
/note="Geneious type: restriction_site"

primer_bind 1649..1675

/created_by="User"
/label="HXGPRT-KpnIF"

gene 1655..3584

/created_by="User"
/label="DHFR-HXGPRT"

misc_feature complement(1868..1890)

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/note="Geneious type: primer_bind_reverse"

misc_feature 2117..2119

/Original_Bases
/label
/note="Geneious type: Editing History Insertion"

Selectable_Mark 2123..2815

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primer	2130..2149
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/note="Oligo type: primer"	
/note="Melting temp.: 56.07"	
/label="HXGPRT detection"	
primer	complement(2845..2866)
/note="Oligo predicted by CLC primer designer"	
/note="Oligo type: primer"	
/note="Melting temp.: 54.02"	
/label="HXGPRT detection"	
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misc_feature	complement(3568..3588)
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/note="Geneious type: primer_bind_reverse"	
primer_bind	3574..3609
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misc_feature	3583..3588
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/note="Geneious type: Concatenated sequence"	
primer_bind	3589..3609
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/soTerm="protein_coding"
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misc_feature complement(4786..4825)
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 /note="Geneious type: primer_bind_reverse"

misc_feature complement(4786..4806)
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 /label="T5ko-3'R"
 /note="Geneious type: primer_bind_reverse"

misc_feature 4807..4810
 /Original_Bases
 /label
 /note="Geneious type: Editing History Insertion"

misc_feature 4807..7084
 /label="pUC19 3' (concatenated sequence 5)"
 /note="Geneious type: Concatenated sequence"

misc_feature 4807..4810
 /created_by="User"
 /label="Smi5"
 /note="Geneious type: restriction_site"

misc_feature 4811..4850
 /gene="lacZalpha"
 /note="multiple cloning site (EcoRI-HindIII)"
 /label="lacZalpha misc"

source 4811..7084
 /organism="Cloning vector pUC19"
 /mol_type="other DNA"
 /label="source Cloning vector pUC19"

CDS complement(4811..4867)
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 /codon_start=1
 /product="beta-galactosidase alpha fragment"
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 RPSQQLRSLNGEWRLMRYFLLTHLCGISHRIWCTLSTICSDAA"
 /label="lacZalpha CDS"

gene complement(4811..4867)
 /gene="lacZalpha"

/label="lacZalpha gene"

misc_feature 4811..4814
/created_by="User"
/modified_by="User"
/label="SmiI3"
/note="Geneious type: restriction_site"

primer_bind 4811..4836
/created_by="User"
/label="pUC19productionF-Smi"

misc_feature 4815..4820
/Recognition_pattern="G^GATCC"
/annotation_group="GGATCC"
/label="BamHI"
/note="Geneious type: restriction site"

misc_feature 4821..4826
/Recognition_pattern="T^CTAGA"
/annotation_group="TCTAGA"
/label="XbaI"
/note="Geneious type: restriction site"

misc_feature 4827..4832
/Recognition_pattern="G^TCGAC"
/annotation_group="GTCGAC"
/label="SalI"
/note="Geneious type: restriction site"

misc_feature 4833..4838
/Recognition_pattern="CTGCA^G"
/annotation_group="CTGCAG"
/label="PstI"
/note="Geneious type: restriction site"

misc_feature 4845..4850
/Recognition_pattern="A^AGCTT"
/annotation_group="AAGCTT"
/label="HindIII"
/note="Geneious type: restriction site"

-10_signal complement(4912..4917)
/note="Plac promoter (drives lacZalpha;
counter-clockwise); TATGTT"
/label="-10 signal"

-35_signal complement(4936..4941)
/note="Plac promoter (drives lacZalpha;
counter-clockwise); TTTACA"
/label="-35 signal"

protein_bind	complement(4961..4973)
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rep_origin	complement(5265..5853)
/note="pMB1 origin of replication (counter-clockwise) (RNAII -35 to RNA/DNA switch point)"	
/label="rep origin"	
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/note="RNAII transcript (complementary strand)"	
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/note="RNAI promoter (clockwise); TTGAAG"	
/label="RNAI promoter (clockwise); TTGAAG -35 signal"	
-10_signal	5693..5698
/note="RNAI promoter (clockwise); GCTACA"	
/label="RNAI promoter (clockwise); GCTACA -10 signal"	
misc_RNA	5707..5814
/note="RNAI transcript"	
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-10_signal	complement(5827..5832)
/note="RNAII promoter (counter-clockwise); CGTAAT"	
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-35_signal	complement(5848..5853)
/note="RNAII promoter (counter-clockwise); TTGAGA"	
/label="-35 signal"	
CDS	complement(6024..6884)
/gene="bla"	
/note="ampR (confers resistance to ampicillin)"	
/codon_start=1	
/product="beta-lactamase"	
/translation="MSIQHFRVALIPFFAAFCPLPVFAHPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERF PMMSTFKVLLCGAVLSRIDAGQEQLGRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLLLTTIGG PKELTAFLNMGDHSVTRLDRWEPELNEAIPNDERDTTMPVAMATTLRKLTTGELLTLASRQQLIDWMEADKVAGPLL RSALPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIAEIGASLIKHW"	
/label="bla CDS"	
gene	complement(6024..6884)
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/label="bla gene"	
misc_feature	6211..6221
/Recognition_pattern="GCCNNNN^NGGC"	
/annotation_group="GCCNNNNNGGC"	

/label="BglI"
/note="Geneious type: restriction site"
sig_peptide complement(6816..6884)
/gene="bla"
/note="required for secretion to the periplasm; cleaved off to form the mature beta-lactamase protein."
/label="bla signal peptide"
-10_signal complement(6928..6933)
/note="bla promoter (counter-clockwise); GAGACA"
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-35_signal complement(6949..6954)
/note="bla promoter (counter-clockwise); TTCAA"
/label="-35 signal"

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26-MAY-2015

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26-FEB-2015

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11-FEB-2015

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15-JAN-2015

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11-FEB-2015

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14-APR-2015

UNIMARK pT2CompDHFRv2 annotations
pT2CompDHFRv2

ORIGIN

Features

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exon 1749..1882

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Region 1847..2722

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exon 2537..2777

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exon 2778..2863

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/note="RNAI promoter (clockwise); TTGAAG"

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/note="RNAI promoter (clockwise); GCTACA"

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gene complement(8586..9446)

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EMBL_ID pT3Comp 11949 bp
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EMBL_ID pT3Comp 11949 bp
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UNIMARK pT3Comp annotations
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ORIGIN

Features

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