



LOCUS Exported 2930 bp ds-DNA circular SYN 16-FEB-2016
 DEFINITION synthetic circular DNA
 ACCESSION .
 VERSION .
 KEYWORDS pGH
 SOURCE synthetic DNA construct
 ORGANISM synthetic DNA construct
 REFERENCE 1 (bases 1 to 2930)
 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..2930
 /organism="synthetic DNA construct"
 /mol_type="other DNA"
 rep_origin complement(3..458)
 /direction=LEFT
 /note="f1 ori"
 /note="f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis"
 CDS complement(241..777)
 /codon_start=1
 /gene="lacZ fragment"

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        /product="LacZ-alpha fragment of beta-galactosidase"
        /note="lacZ-alpha"

/translation="MTMITPSAQLTLTKGNKSWSLAHVRPQASRDIPGSLALTAVPNSP
YSESYARSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNG
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        FRFSALRHLDPKKLD"
        primer_bind      600..616
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                        /note="common sequencing primer, one of multiple
similar
                        variants"
        promoter         626..644
                        /note="T7 promoter"
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        promoter         complement(734..752)
                        /note="T3 promoter"
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        primer_bind      complement(773..789)
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similar
                        variants"
        protein_bind     797..813
                        /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(821..851)
                        /note="lac promoter"
                        /note="promoter for the E. coli lac operon"
        protein_bind     866..887
                        /bound_moiety="E. coli catabolite activator protein"
                        /note="CAP binding site"
                        /note="CAP binding activates transcription in the
presence
                        of cAMP."
        rep_origin        complement(1175..1763)
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                        /product="beta-lactamase"
                        /note="AmpR"

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carbenicillin, and /note="confers resistance to ampicillin,
related antibiotics"

/translation="MSIQHFRVALIPFFAAFCPLPVFAHPETLVKVKDAEDQLGARVGYI
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/note="AmpR promoter"

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