S2 Data. FASTA format sequence information of the modified *sh*ble screening vector.

LOCUS Exported 6333 bp ds-DNA circular SYN

DEFINITION synthetic circular DNA

ACCESSION .

VERSION .

KEYWORDS .

SOURCE synthetic DNA construct

ORGANISM synthetic DNA construct

REFERENCE 1 (bases 1 to 6333)

 AUTHORS Thomas Baier

FEATURES Location/Qualifiers

 source 1..6333

 /organism="synthetic DNA construct"

 /mol\_type="other DNA"

 source 2593..3355

 /organism="synthetic DNA construct"

 /mol\_type="other DNA"

 promoter 572..838

 /label=HSP70Ap promoter

 /label=HSP70Ap

 promoter 845..1065

 /label=RBCS2p promoter

 /label=RBCS2p

 transit\_peptide join(1066..1073,1219)

 /label=RBCS2ORF

 intron 1074..1218

 /label=rbcS2i1

 CDS 1247..1258

 /codon\_start=1

 /product="Factor Xa recognition and cleavage site"

 /label=Factor Xa site

 /translation="IEGR"

 CDS join(1259..1562,1892..2295)

 /codon\_start=1

 /label=mRuby2

 /translation="VSKGEELIKENMRMKVVMEGSVNGHQFKCTGEGEGNPYMGTQTMRIKVIEGGPLPFAFDILATSFMYGSRTFIKYPKGIPDFFKQSFPEGFTWERVTRYEDGGVVTVMQDTSLEDGCLVYHVQVRGVNFPSNGPVMQKKTKGWEPNTEMMYPADGGLRGYTHMALKVDGGGHLSCSFVTTYRSKKTVGNIKMPGIHAVDHRLERLEESDNEMFVVQREHAVAKFAGLGGGMDELYK"

 intron 1563..1891

 /label=rbcS2i2

 CDS 2296..2307

 /codon\_start=1

 /product="Factor Xa recognition and cleavage site"

 /label=Factor Xa site

 /translation="IEGR"

 CDS 2320..2343

 /codon\_start=1

 /product="peptide that binds Strep-Tactin(R), an engineered form of streptavidin"

 /label=Strep-Tag II

 /translation="WSHPQFEK"

 misc\_feature 2347..2580

 /label=3'UTR

 promoter 2593..3355

 /label=PSAD promoter

 CDS 3389..3766

 /codon\_start=1

 /label=ble

 /translation="AKLTSAVPVLTARDVAGAVEFWTDRLGFSRDFVEDDFAGVVRDDVTLFISAVQDQDQVVPDNTLAWVWVRGLDELYAEWSEVVSTNFRDASGPAMTEIGEQPWG

 REFALRDPAGNCVHFVAEEQD"

 misc\_feature 3776..4014

 /label=3'UTR

 /label=3'UTR(1)

 rep\_origin complement(4474..5062)

 /direction=LEFT

 /label=ori

 /note="high-copy-number ColE1/pMB1/pBR322/pUC origin of

 replication"

 CDS complement(5233..6093)

 /codon\_start=1

 /gene="bla"

 /product="beta-lactamase"

 /label=AmpR

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

 /translation="MSIQHFRVALIPFFAAFCLPVFAHPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMMSTFKVLLCGAVLSRIDAGQEQLGRRIHYSQNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLLTTIGGPKELTAFLHNMGDHVTRLDRWEPELNEAIPNDERDTTMPVAMATTLRKLLTGELLTLASRQQLIDWMEADKVAGPLLRSA

LPAGWFIADKSGAGERGSRGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIAEIGASLIKHW"

 promoter complement(6094..6198)

 /gene="bla"

 /label=AmpR promoter

 rep\_origin complement(join(6225..6333,1..347))

 /direction=LEFT

 /label=f1 ori

 /note="f1 bacteriophage origin of replication; arrow

 indicates direction of (+) strand synthesis"

ORIGIN

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 121 accatcaccc taatcaagtt ttttggggtc gaggtgccgt aaagcactaa atcggaaccc

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 1921 agcctggagg acggctgcct ggtgtaccac gtgcaggtgc gcggcgtgaa cttccccagc

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