



基本信息

别名:	pET-28a-mCherry
平台编号	bio-105898
启动子:	T7
复制子:	pBR322
终止子:	T7 terminator
质粒分类:	大肠杆菌载体; PET 系列表达质粒
质粒大小:	6046bp
质粒标签:	N-6×His, N-Thrombin, N-T7,N-mCherry, C-6×His
原核抗性:	Kan
克隆菌株:	DH5a
培养条件:	37 度
表达宿主:	BL21(DE3)
培养条件:	红色
诱导方式:	IPTG 或乳糖及其类似物
5'测序引物:	T7:TAATACGACTCACTATAGGG
3'测序引物:	T7-ter: TGCTAGTTATTGCTCAGCGG
质粒属性	
质粒宿主:	大肠杆菌
质粒用途:	蛋白表达
片段类型:	ORF
片段物种:	
原核抗性:	Kan
真核抗性:	
荧光标记:	红色

大肠杆菌表达载体

The circular map shows the pET28a-mCherry plasmid (6046 bp) with various features and restriction sites. Key elements include:

- mCherry gene**: Red arrow pointing clockwise.
- f1 ori**: Yellow arrow pointing clockwise.
- KanR**: Green arrow pointing counter-clockwise.
- ori**: Yellow arrow pointing clockwise.
- rop**: Yellow box.
- bom**: Grey box.
- lacI promoter**: Purple arrow pointing counter-clockwise.
- lac operator**: Blue box.
- T7 terminator**: White box.
- 6xHis**: White box.
- T7 tag (gene 10 leader)**: Pink box.
- thrombin site**: Pink box.
- T7 promoter**: White box.

Restriction sites are labeled around the circle with their corresponding enzyme names and recognition sequences (e.g., (5884) **PaeRI** - **PspXI** - **TII** - **XhoI**, (5963) **BlpI**, (245) **DraIII**, (370) **PsiI**, etc.).

LOCUS	Exported	6046 bp ds-DNA	circular SYN 16-JUN-2017
DEFINITION	synthetic circular DNA		
ACCESSION	.		
VERSION	.		
KEYWORDS	pet28a-mcherry		
SOURCE	synthetic DNA construct		
ORGANISM	synthetic DNA construct		
REFERENCE	1 (bases 1 to 6052)		
AUTHORS	.		
TITLE	Direct Submission		
JOURNAL	Exported Friday, June 16, 2017 from SnapGene Viewer 3.3.2		

FEATURES	Location/Qualifiers
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source	1..6046 /organism="synthetic DNA construct" /mol_type="other DNA"
rep_origin	12..467 /direction=RIGHT /note="f1 ori" /note="f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis"
CDS	complement(560..1375) /codon_start=1 /gene="aph(3')-Ia" /product="aminoglycoside phosphotransferase" /note="KanR" /note="confers resistance to kanamycin in bacteria or G418 (Geneticin(R)) in eukaryotes" /translation="MSHIQRETSCSRPRLNSNMDADLYGYKWARDNVGQSGATIYRL
YG	KPDAPELFLKHGKGSVANDVTDEMVRNLNWLTEFMPLPTIKHFIRTPDDAWLLTTAIP
GK	TAFQVLEEYPDSGENIVDALAVFLRRLHSIPVCNCPFNSDRVFRLAQAQSRMNGLV
DA	SDFDDERNGWPEQVWKEMHKLLPFSPDSVVTHGDFSLDNLIFDEGKLIGCIDVGRV
GI	ADRYQDLAILWNCLGEFSPSLQKRLFQKYGIDNPD MNKLQFHLMLDEFF"
rep_origin	1497..2085 /direction=RIGHT /note="ori" /note="high-copy-number ColE1/pMB1/pBR322/pUC origin of replication"
misc_feature	2271..2413 /note="bom" /note="basis of mobility region from pBR322"
CDS	complement(2515..2706) /codon_start=1 /gene="rop" /product="Rop protein, which maintains plasmids at low copy number" /note="rop" /translation="MTKQEK TALNMARFIRSQTLT LLEKLNELDADEQADICESLHD
HA	DELYRSCLARFGDDGENL"
CDS	complement(3515..4597)



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	<pre>/codon_start=1 /gene="lacI" /product="lac repressor" /note="lacI" /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)."</pre>
EL	
	<pre>/translation="MKPVTLYDVAEYAGVSYQTVSRVNVQASHVSAKTREKVEAAMA</pre>
GV	<pre>NYIPNRVAQQLAGKQSLIGVATSSALHAPSQIVAAIKSRADQLGASVVSMVERS</pre>
SH	<pre>EACKAAVHNLLAQRVSGLIINYPLDDQDAIAVEAACTNVPALFLDVSDQTPINSIIF</pre>
SA	<pre>EDGTRLGVEHLVALGHQQIALLAGPLSSVSARLRLAGWHKYLTRNQIQPIAEREGDW</pre>
SC	<pre>MSGFQQTMQMLNEGIVPTAMLVANDQMALGAMRAITESGLRVGADISVVGYYDDTETS</pre>
PR	<pre>YIPPLTTIKQDFRLLGQTSVDRLLQLSQGQAVKGNQLLPVSLVKRKTTLAPNTQTAS</pre>
	<pre>ALADSLMQLARQVSRLESGQ"</pre>
promoter	<pre>complement (4598..4675) /gene="lacI" /note="lacI promoter"</pre>
promoter	<pre>4984..5002 /note="T7 promoter" /note="promoter for bacteriophage T7 RNA polymerase"</pre>
protein_bind	<pre>5003..5027 /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)."</pre>
CDS	<pre>5173..5883 /codon_start=1 /product="monomeric derivative of DsRed fluorescent protein (Shaner et al., 2004)" /note="mCherry" /note="mammalian codon-optimized" /translation="MVSKGEEDNMAIIKEFMRFKVHMEGSVNGHEFEIEGEGEGRPY</pre>
EG	



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NF

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EGRHSTGGMDELYK"

CDS 5890..5907

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/product="6xHis affinity tag"

/note="6xHis"

/translation="HHHHHH"

terminator 5974..6021

/note="T7 terminator"

/note="transcription terminator for bacteriophage T7 RNA polymerase"

ORIGIN

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