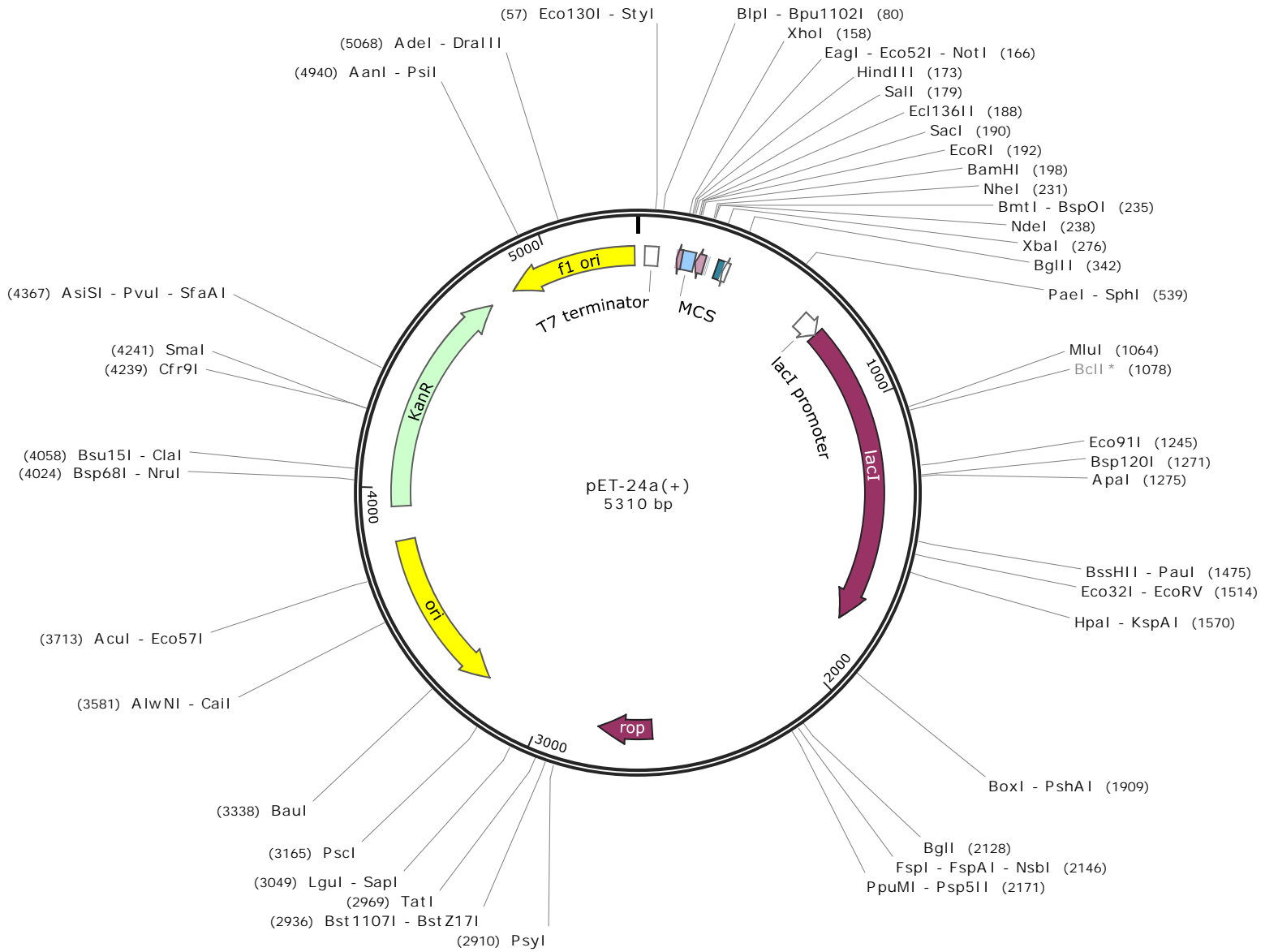


Bacterial vector with a kanamycin resistance marker for inducible expression of T7-tagged proteins. For other reading frames, use pET-24b(+) or pET-24c(+).





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 20 25 30 35 40 45
 Q T V S R V V N Q A S H V S A K T R E K V E A A M A E L N
 lacI

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 50 55 60 65 70
 Y I P N R V A Q Q L A G K Q S L L I G V A T S S L A L H
 lacI

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 75 80 85 90 95 100
 A P S Q I V A A I K S R A D Q L G A S V V V S M V E R S
 lacI

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 105 110 115 120 125 130
 G V E A C K A A V H N L L A Q R V S G L I I N Y P L D D Q
 lacI
 MluI BclI *

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 135 140 145 150 155
 D A I A V E A A C T N V P A L F L D V S D Q T P I N S I
 lacI

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 160 165 170 175 180 185
 I F S H E D G T R L G V E H L V A L G H Q Q I A L L A G
 lacI
 Eco911 Bsp120I ApaI

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 P L S S V S A R L R L A G W H K Y L T R N Q I Q P I A E R
 lacI

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 E G D W S A M S G F Q Q T M Q M L N E G I V P T A M L V
 lacI

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 A N D Q M A L G A M R A I T E S G L R V G A D I S V V G
 lacI

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 lacI

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 D R L L Q L S Q G Q A V K G N Q L L P V S L V K R K T T
 lacI

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 lacI

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 360
 S G Q
 lacI

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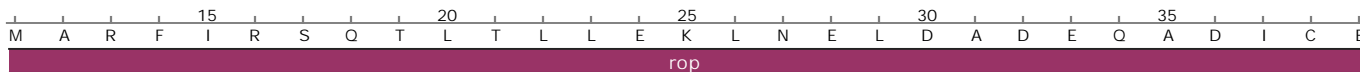
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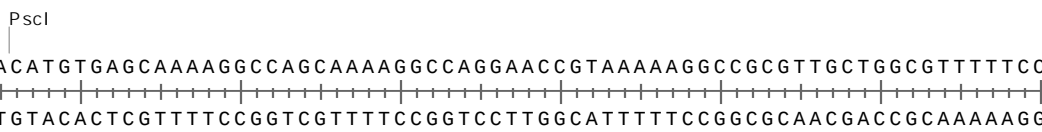
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BalI

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ori

3400

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ori

3485

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ori

3570

CaiI
 AlwNI

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ori

3655

AcuI
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ori

3740

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ori

3825

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3910

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3995

1 M 5 Q 10 S 15 L 20 D
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 KanR

NruI
 Bsp68I

ClaI
 Bsu15I

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4080

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4165

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 KanR

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 KanR

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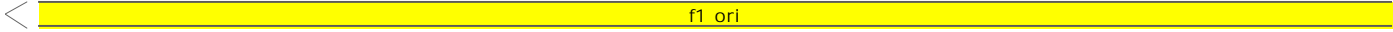
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 f1 ori

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 f1 ori

AanI
PstI

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5015

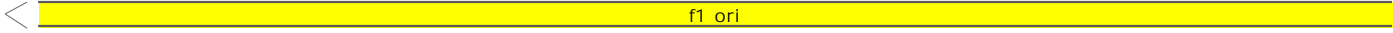


f1 ori

Adel
DraIII

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5100



f1 ori

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5185



f1 ori

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5270



f1 ori

























CGCGCTTAATGCGCCGCTACAGGGCGCGTCCCATTGCGCA 3'
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*** 5310



f1 ori

Enzymes	Sites	
AanI	1	4940
AcuI	1	3713
Adel	1	5068
AlwNI	1	3581
ApaI	1	1275
AsiSI	1	4367
BamHI	1	198
BauI	1	3338
BclI	1*	1078*
BglI	1	2128
BglII	1	342
BipI	1	80
BmtI	1	235
BoxI	1	1909
Bpu1102I	1	80
Bsp68I	1	4024
Bsp120I	1	1271
BspOI	1	235
BssHII	1	1475
Bst1107I	1	2936
BstZ17I	1	2936
Bsu15I	1	4058
CaiI	1	3581
Cfr9I	1	4239
Clal	1	4058
DraIII	1	5068
EagI	1	166
Ecl136I	1	188
Eco32I	1	1514
Eco52I	1	166
Eco57I	1	3713
Eco91I	1	1245
Eco130I	1	57
EcoRI	1	192
EcoRV	1	1514
FspI	1	2146
FspAI	1	2146
HindIII	1	173
HpaI	1	1570
KspAI	1	1570
LguI	1	3049
MluI	1	1064
NdeI	1	238
NheI	1	231
NotI	1	166
NruI	1	4024
NsbI	1	2146
PaeI	1	539
Paul	1	1475
PpuMI	1	2171
PscI	1	3165
PshAI	1	1909
PsiI	1	4940
Psp5II	1	2171
PsyI	1	2910
PvuI	1	4367
SacI	1	190
Sall	1	179
SapI	1	3049
SfaAI	1	4367
SmaI	1	4241
SphI	1	539
StyI	1	57
TatI	1	2969
XbaI	1	276
XhoI	1	158

Feature	Location	Size (bp)			Type
✓ T7 terminator	26 .. 73	48			terminator
/note	= transcription terminator for bacteriophage T7 RNA polymerase				
✓ 6xHis	140 .. 157	18			CDS
/product	= 6xHis affinity tag				
/translation	= HHHHHH 6 amino acids = 840.9 Da				
✓ MCS	158 .. 203	46			misc_feature
/note	= multiple cloning site				
✓ T7 tag	207 .. 239	33			CDS
/product	= epitope tag from a T7 major capsid protein				
/translation	= MASMTGGQQMG 11 amino acids = 1.1 kDa				
✓ RBS	248 .. 253	6			RBS
/note	= ribosome binding site				
✓ lac operator	284 .. 308	25			protein_bind
/bound_moiety	= lac repressor encoded by lacI				
/note	= The lac repressor binds to the lac operator to inhibit transcription in <i>E. coli</i> . This inhibition can be relieved by adding lactose or isopropyl-β-D-thiogalactopyranoside (IPTG).				
✓ T7 promoter	309 .. 327	19			promoter
/note	= promoter for bacteriophage T7 RNA polymerase				
✓ lacI promoter	636 .. 713	78			promoter
/gene	= lacI				
✓ lacI	714 .. 1796	1083			CDS
/gene	= lacI				
/product	= lac repressor				
/note	= The lac repressor binds to the lac operator to inhibit transcription in <i>E. coli</i> . This inhibition can be relieved by adding lactose or isopropyl-β-D-thiogalactopyranoside (IPTG).				
/translation	= VKPVTLYDVAEYAGVSYQTVSRVFNQASHVSAKTRKVEAAMAELNYIPNRVAQQLAGKQSLIGVATSSALHAPSQIVAAIKS RADQLGASVVVSMVERSGVEACKAAVHLLAQRVSGLIINYPDDQDAIAVEAACTNVPALFLDVSDQTPINSIIFSHEDGTRLG VEHLVALGHQOIALLAGPLSSVSARLRLAGWHKYLTRNQIQPIAEREGDWSAMSGFQOTMQMLNEGIVPTAMLVANDQMALGAM RAITESGLRVGADISVVGYYDDTEDSSCYIPPLTTIKQDFRLLGQTSVDRLQLSQGQAVKGNQLLPVSLVKRKTTTLPNTQTASPR IADSI MOI AROVSRI FSGQ* 360 amino acids = 38.6 kDa				
✓ rop	2605 .. 2796	192			CDS
/gene	= rop				
/product	= Rop protein				
/translation	= VTKQEKTALNMARFIRSQTLTLEKLNELDADEQADICESLHDHADELYRSCLEARFGDDGENL* 63 amino acids = 7.2 kDa				
✓ ori	3226 .. 3814	589			rep_origin
/direction	= LEFT				
/note	= high-copy-number ColE1/pMB1/pBR322/pUC origin of replication				

Feature	Location	Size (bp)			Type
✓ KanR	3936 .. 4751	816			CDS
/gene	= aph(3')-Ia				
/product	= aminoglycoside phosphotransferase				
/note	= confers resistance to kanamycin				
/translation	= MSHIQRETSCSRPRLNSNMDADLYGYKWARDNVGQSGATIYRLYGKPDAPFLKHKGKGSVANDVTDEMVRNLNWLTEFMPLPTIK HFIRTPDDAWLLTTAIPGKTAFOVLEEYPDSGENIVDALAVFLRRLHSIPVCNCPFNSDRVFRLAQASRMNGLVDASDFDDERN GWPVEQVWKEMHKLLPFSPDSVVTHGDFSLDNLIFDEGKLGICIDVGRVGIADRYODLAILWNCLGEFSPSLQKRLFQKYGIDNPD MNKIQFHI M I DFFF* 271 amino acids = 31.0 kDa				
✓ f1 ori	4844 .. 5299	456			rep_origin
/direction	= LEFT				
/note	= f1 bacteriophage origin of replication; arrow indicates direction of (+) strand synthesis				

Description: Bacterial vector with a kanamycin resistance marker for inducible expression of T7 - tagged proteins . For other reading frames , use pET -24b(+) or pET -24c(+).

Created: Sunday, May 13, 2012

Last Modified: Monday, Dec 2, 2013

Accession Number:

Code Number:

Sequence Author: Novagen (EMD Millipore)

DNA Type: Synthetic DNA

Laboratory Host Organism: Escherichia coli

Bacterial Transformation Strain: Unspecified
Dam⁺ Dcm⁺ EcoKI⁺

Comments:

References: