SMOBIO
Small Bio, Smart Tool

www.smobio.com

Product Information

GetClone™ PCR Cloning Vector

CV1000	**20 × RXN**	
	pGet1.1 vector	23 μl
	pGet-For Primer (10μM)	100 μl
	pGet-Rev Primer (10μM)	100 μl

Storage

-20°C	≥ 24 months

Description

The GetClone™ PCR Cloning Vector is a positive selection system for the high efficiency cloning of blunt end DNA or amplicons which are generated by PCR reaction with polymerases capable of proofreading activity. This cloning vector contains a lethal gene which can be disrupted by direct ligation of a blunt end DNA into the cloning site. Only colonies with inserted vectors are able to propagate, eliminating the additional needs of IPTG and X-Gal for blue/white screening.

Features

1. Cloning efficiency was greater than 90%
2. The IPTG and X-Gal are not required
3. Accepts a wide range of insert/vector ratio 0.5:1 to 12:1
4. Accepts insert size from 6 bp to 12 kb
5. The phosphorylation of PCR fragments is not required
6. Accepts blunt end amplicon or DNA fragment (not for sticky end)

Contents

pGet1.1 vector

Sequencing Primers
pGet-For: 5'-TCGAAGTTAAAGATGATTACGG-3'
pGet-Rev: 5'-TCTCTCGATAGCATTTCCTGC-3'

Suggested colony PCR condition

94°C	2 min	
94°C	30 sec	30~35 cycles
50°C	30 sec	
72°C	30 sec/kb	
72°C	1 min	

Ligation Example (NEB T4 Ligase system #M0202)

Insert (Blunt end)	X μl (Y ng*)
pGet1.1 (2995 bp)	1 μl (50 ng)

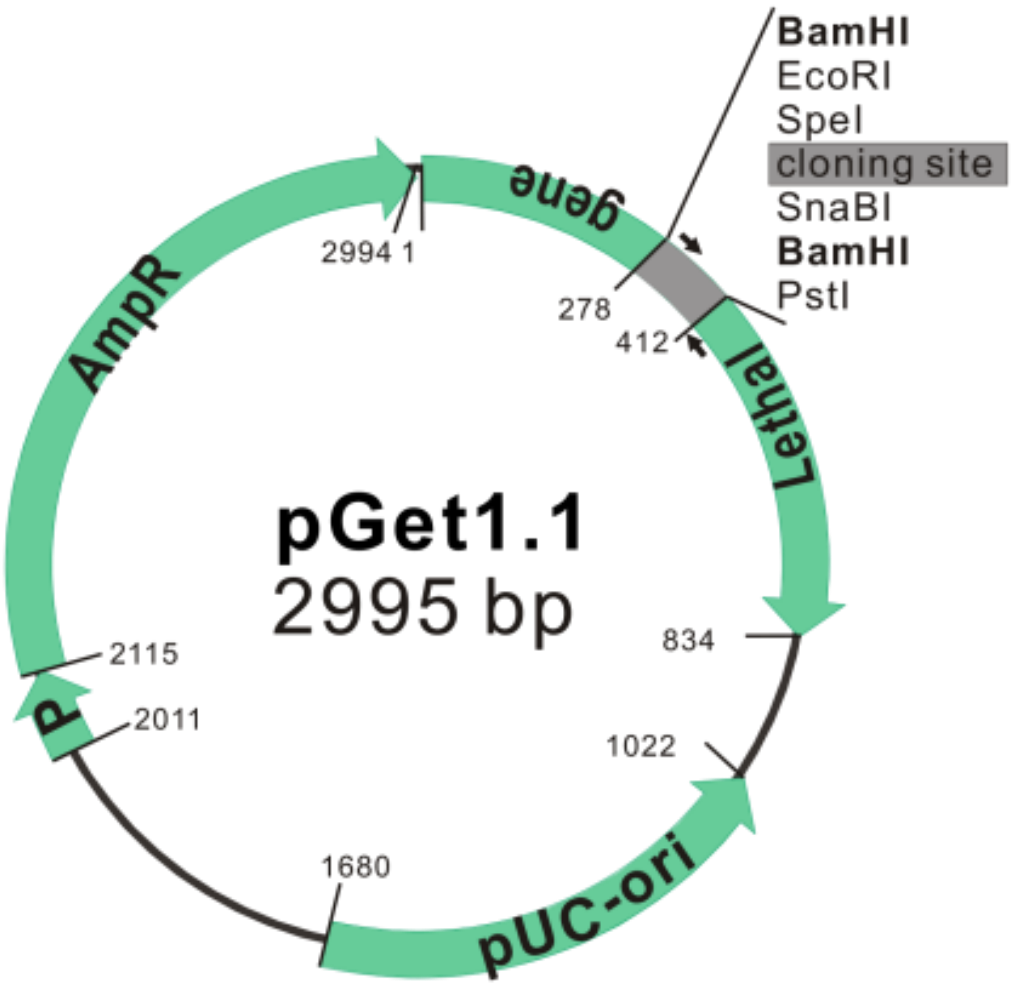
Mix well before reaction

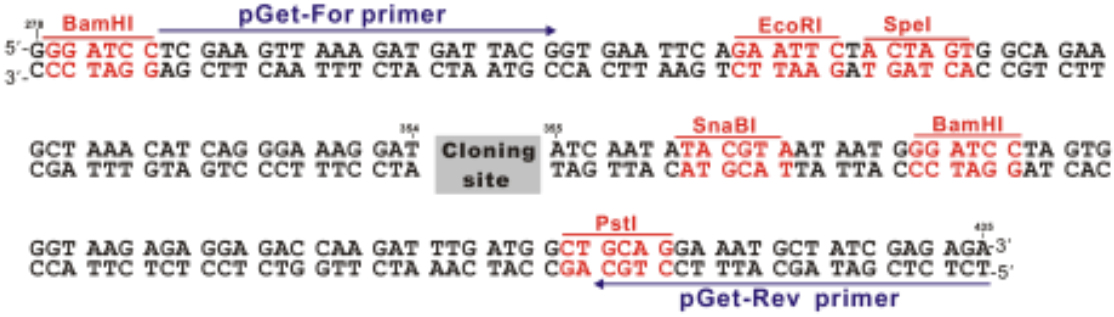
10X T4 DNA Ligase Buffer	2 μl
T4 DNA Ligase	1 μl
ddH_20	to 20 μl
Final volume	20 μl

Incubate at 16°C or room temperature (20~25°C) for 2 hours.

*For 3/1 of Insert/Vector molar ratio:

$$\mathrm{Y(ng)} = \frac{3}{1} \times \frac{50(\mathrm{ng}) \times \mathit{Insert\ size}\ (\mathrm{kb})}{2.995\ (\mathrm{kb})}$$


BamHI
EcoRI
SpeI
cloning site
SnaBI
BamHI
PstI
gene
AmpR
LethaI
P
pUC-ori
pGet1.1
2995 bp
2994 1
278
412
834
1022
1680
2011
2115


BamHI
pGet-For primer
EcoRI
SpeI
5′-GGG ATC CTC GAA GTT AAA GAT GAT TAC GGT GAA TTC AGA ATT CTA CTA GTG GCA GAA
3′-CCC TAG GAG CTT CAA TTT CTA CTA ATG CCA CTT AAG TCT TAA GAT GAT CAC CGT CTT
GCT AAA CAT CAG GGA AAG GAT
Cloning site
ATC AAT ATA CGT AAT AAT GGG ATC CTA GTG
CGA TTT GTA GTC CCT TTC CTA
TAG TTA CAT GCA TTA TTA CCC TAG GAT CAC
SnaBI
BamHI
GGT AAG AGA GGA GAC CAA GAT TTG ATG GCT GCA GGA AAT GCT ATC GAG AGA-3′
CCA TTC TCT CCT CTG GTT CTA AAC TAC CGA CGT CCT TTA CGA TAG CTC TCT-5′
PstI
pGet-Rev primer

pGet1.1 vector's features:

Genetic elements of pGet1.1 vector

Element	Function	Position (bp)
Lethal gene	For screening against self-ligation	1...834
MCS	Multiple cloning site	278...412
Insertion site	The ligation site of blunt end insert	354...355
M13 Rev	M13 reverse primer	838...854
pUC-ori	Initiation of replication	1022...1610
P	The promoter for expressing the ampicillin resistance and lethal gene	2011...2115
Amp^R	Ampicillin resistance gene	2115...2973
M13 For	M13 forward primer	2975…2990

The restriction enzyme with one or two restriction sites on pGet1.1

Enzyme	Positions	Enzyme	Positions
AclI	2302, 2675	FspI	2681
ApaLI	1353, 2232	HindIII	204
AvaII	2540, 2762	HpaI	568, 822
BamHI	279, 375	NspI	4, 1671
BanI	1923, 2951	PciI	1667, 2995
BglII	434	PssI	1935
Bme1580I	1357, 2236	PstI	418
BsaAI	368, 791	PvuI	2535
BsaHI	2364	PvuII	1847
BseYI	1363	ScaI	2423
BspHI	947, 2064	SnaBI	368
BsrDI	2670, 2844(c)	SpeI	322
BsrFI	2819	SspI	2099
CdiI	2351, 2652 (c)	StyI	718
EcoRI	315	TatI	2421

For more details of the sequence of pGet vector, visit our website www.smobio.com

Related Products

DM1100	ExcelBand 50 bp DNA Ladder, 500 µl
DM2100	ExcelBand 100 bp DNA Ladder, 500 µl
DM2300	ExcelBand 100 bp+3K DNA Ladder, 500 µl
DM3100	ExcelBand 1 KB (0.25-10 kb) DNA Ladder, 500 µl
DM3200	ExcelBand 1 KB Plus (0.1-10 kb) DNA Ladder, 500 µl
DM4100	ExcelBand XL 25 kb DNA Ladder, Broad Range (up to 25 kb), 500 µl
DL5000	FluoroDye DNA Fluorescent Loading Dye (Green, 6×), 1ml
DS1000	FluoroStain DNA Fluorescent Staining Dye (Green, 10,000×), 500µl
TF1000	ExcelTaq SMO-HiFi DNA Polymerase, 5 U/ µl, 500 U × 1
TP1000	ExcelTaq DNA Polymerase, 500 U × 1
TP1200	ExcelTaq 5× PCR Master Dye Mix, 200 RXN
TP1260	ExcelTaq 5× Fluorescent PCR Master Mix Kit, 200 RXN
TP2000	ExcelTaq Blood Direct DNA Polymerase, 5 U/ µl, 500 U × 1
TP2100	ExcelTaq Blood Direct PCR Master Mix Kit, 200 RXN

For Research use only

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