Are you sure it is Real White??

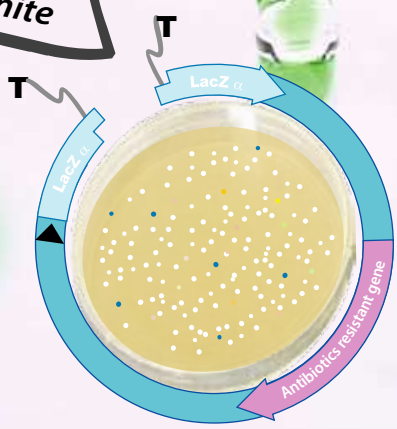
pLUG® TA-cloning Vector Series

DCS™ Technology reduce the number of false positive colony upto 99% !

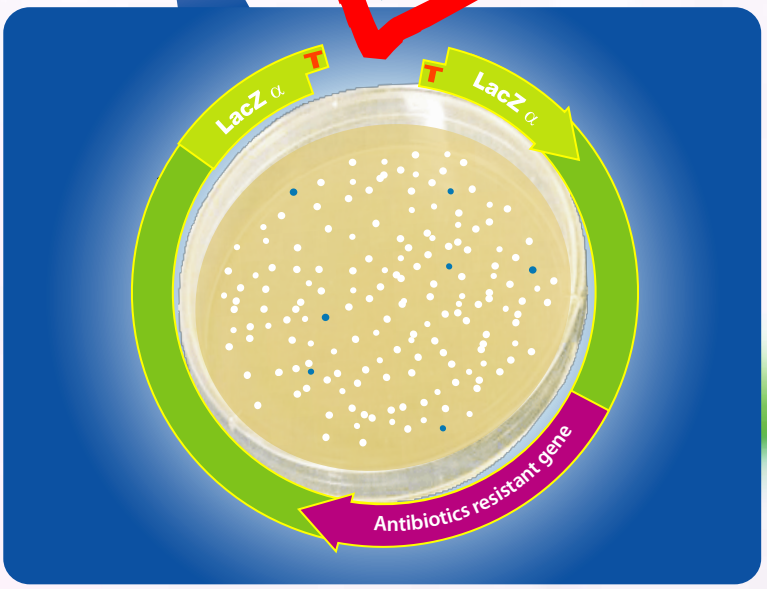
Ligation in Just 15 min !

Short total required cloning time compatible to that of Topoisomerase-mediated cloning strategy.

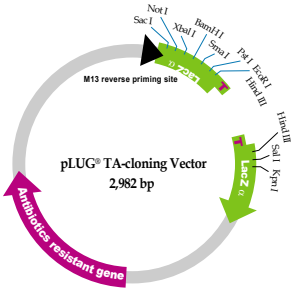
Artificial T
False White



Natural
Real White !!!



pLUG® TA-cloning Vector Kit (Cat. No. 11041)



Element	Position (bp)
LacZα fragment	216 ~ 643
LacZα start cordon	216
M13 reverse priming site	204 ~ 220
M13 forward priming site	439 ~ 454
Multiple cloning site	272 ~ 404
Ampicillin resistance gene	1,188 ~ 2,308
f1 origin of replication	594 ~ 1,050
ColE1 origin of replication	2,042 ~ 2,082

LacZα Start

```
CAGGAAACAGCTATGACCATGATTACGCCAAGCTCGAAATTAACCCTCACTAAAGGGAACAAAAGC
GTCCTTTGTCGATACTGGTACTAATGCGGTTCGAGCTTTAATTGGGAGTGATTTCCCTTGTTTTCG
```

M13 reverse priming site

Sac I / Not I / Xba I / BamH I / Sma I / Pst I / EcoR I

```
TGGAGCTCCACCGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTCGATA
ACCTCGAGGTGGCGCCACCGCCGGCGAGATCTTGATCACCTAGGGGGCCCGACGTCCTTAAGCTAT
```

Hind III / Hind III / Sal I

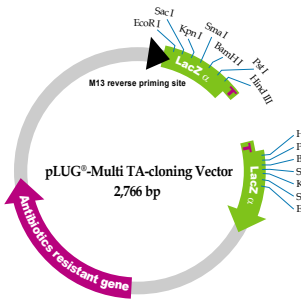
```
TCAAGCTTCCAGAGCT[PCR Product]GACGTGGCAAGCTTATCGATACCGTCGACCTTCAGGGGGGG
AGTTCGAAGGTCTCG[PCR Product]TCTGCACCGTTCGAATAGCTATGGCAGCTGGAAGTCCCCCCC
```

Kpn I

```
CCCGGTACCCAATTCGCCCTATAGTGAGTCGTATTACAATTCA[CTGGCCGTCGTTTTAC]AACGTCGT
GGGCCATGGGTTAAGCGGGATATCACTCAGCATAATGTTAAGT[GACCGGCAGCAAAATG]TTGCAGCA
```

M13 forward priming site

pLUG®-Multi TA-cloning Vector Kit (Cat. No. 11051)



Element	Position (bp)
LacZα fragment	216 ~ 619
LacZα start cordon	216
M13 reverse priming site	204 ~ 220
M13 forward priming site	371 ~ 386
Multiple cloning site	230 ~ 360
Ampicillin resistance gene	965 ~ 1,825
ColE1 origin of replication	1,826 ~ 1,866

LacZα Start

EcoR I / Sac I / Kpn I / Sma I / BamH I / Xba I / Sal I

```
CAGGAAACAGCTATGACCATGATTACGAATTCGAGCTCGGTACCCGGGGATCCTCTAGAGTCGAC
GTCCTTTGTCGATACTGGTACTAATGCTTAAGCTCGAGCCATGGGCCCCTAGGAGATCTCAGCTG
```

M13 reverse priming site

Pst I / Sph I / Hind III / Hind III / Sph I / Pst I / Sal I

```
CTGCAGGCATGCAAGCTTCCAGAGCT[PCR Product]GACGTGGCAAGCTTGCATGCCTGCAGGTCGAC
GACGTCCGTACGTTCGAAGGTCTCG[PCR Product]TCTGCACCGTTCGAACGTACGGACGTCCAGCTG
```

Xba I / BamH I / Sma I / Kpn I / Sac I / EcoR I

```
TCTAGAGGATCCCCGGGTACCGAGCTCGAATTCGAGCTTGGCA[CTGGCCGTCGTTTTAC]AACGTCGT
AGATCTCCTAGGGGCCCATGGCTCGAGCTTAAGCTCGAACCGT[GACCGGCAGCAAAATG]TTGCAGCA
```

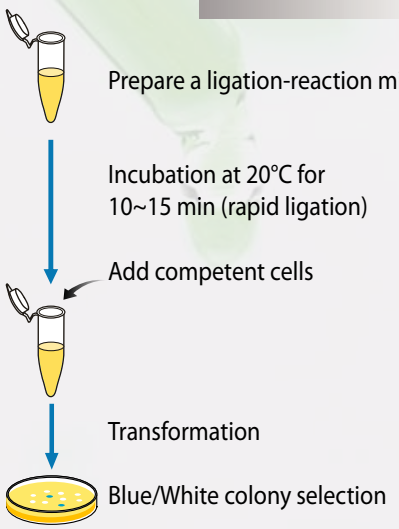
M13 forward priming site

Innovate Thinking !
DCS ™ Technology !

DCS™ Technology

The false positive colony, which is the main problem encountered in conventional TA-cloning, can be eliminated almost 99% by DCS™ Technology. DCS™ Technology gives high percentage of true white colonies with an anticipated recombinant plasmid.
DCS™ Technology excludes the possibility of selection of colonies having a parental plasmid used for the preparation of TA-cloning vector or a re-circulated plasmid after loss of T-overhang of TA-cloning vector.

Flow chart of TA-cloning



Component	Volume(μl)
TA-cloning vector	1
PCR product	1 ~ 4
Distilled water	Adjust to 7
5X Ligation buffer	2
T4 DNA ligase	1
Total volume	10

Characteristics

- High cloning efficiency
- High percentage of true white colony
  (Credible blue/white colony selection)
- Rapid procedure (Rapid ligation) : 10~15 min
- Allowing convenient sequencing
- Allowing easy re-cloning to another vector
  (Mirror-repeat pattern)

pLUG® TA-cloning Vector Kit (Cat. No. 11041 / 20rxn)

pLUG® TA-cloning Vector	20 μl
5X Ligation Buffer	100 μl
T4 DNA Ligase	20 μl
Distilled Water	1 ml

pLUG® - Multi TA-cloning Vector Kit (Cat. No. 11051 / 20rxn)

pLUG® - Multi TA-cloning Vector	20 μl
5X Ligation Buffer	100 μl
T4 DNA Ligase	20 μl
Distilled Water	1 ml

Distributor

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