Tribioscience

BL21 Competent Cell Transformation Kit (Catalog: TBS8044-10, Storage at -80 ℃)

DESCRIPTION

Tribo™ E. coli BL21(DE3) Competent Cells are an E. coli strain BL21(DE3) that provides high transformation efficiencies. The strain contains the lambda DE3 prophage that carries the gene for T7 RNA polymerase under the control of a lacUV5 promoter, allowing expression of the T7 RNA polymerase to be induced with IPTG. BL21(DE3) is an E. coli B strain and does not contain the lon protease. It is also deficient in the outer membrane protease OmpT. The lack of these two key proteases reduces the degradation of heterologous proteins expressed in the cells.

APPLICATIONS

1) Gene expression in E. coli.
2) IPTG induction.

TRANSFORMATION EFFICIENCY (CFU/UG)

>1x10^9

BLUE-WHITE SCREENING

No

CLONING METHYLATED DNA

No

STRAIN

B

GENOTYPE

F– ompT gal dcm lon hsdSB(rB- mB-) λ(DE3 [lacI lacUV5-T7 gene 1 ind1 sam7 nin5])

KIT CONTENTS FOR 10 TESTS

Name	Size (10 tests)
Competent Cells	10 x 50 µL
pUC19	20 µL
SOC	1.5 mL

Storage conditions:

Store the competent cells at -80ºC. Shelf life: 6 months.

Note

Not suitable for maintenance of expression plasmids.

PROCEDURES

1. When needed, transfer a tube of competent cells from the -80ºC freezer to an ice bath. Keep the tube on ice for 10 minutes to thaw the cells.
2. Add the transforming DNA (about 25 ng per 50 µL of competent cells) in a volume of less than 2.5 µL (5% of the volume of competent cells). Set up both negative control (no plasmid DNA) and positive control (pUC19, the kit provides). Place the tubes on ice for 30 minutes (Need just 2-5 min if purified plasmid applied).
3. Transfer the tubes to a rack in a 42ºC water bath for 90 seconds without shaking the tubes.
4. Quickly transfer the tubes to an ice bath to cool the cells for 2 minutes.
5. Add 150 µL of SOC medium to each tube. Incubate the cultures in a 37ºC shaking incubator for 45 minutes.
6. Transfer 50 µL of the transformed competent cells onto LB agar containing appropriate antibiotic.
7. Spead the cell liquid evenly on the agar plate and keep the plates at room temperature until the liquid is absorbed.
8. Keep 10-15 min from light at room temperature for drying plate.
9. Invert the plates and incubate the plates at 37ºC for 12-16 hours. Pick up single colony for downstream application.

RELATED PRODUCTS

DH5α Competent Cell Transformation Kit (TBS8041)
Transfection Reagent Maxi (TBS8042)
DH10 Competent Cell Transformation Kit (TBS8043)
Stable Competent Cell Transformation Kit (TBS8045)
Plasmid DNA prep min (TBS6011)
Plasmid DNA Rapidprep Midi Ki (TBS6014)
Endotoxin-free plasmid DNA prep min (TBS6015)
Low Endotoxin Plasmid DNA Mini (TBS6017)
PCR magnetic Cleanup (TBS6029)
Endotoxin-free plasmid DNA prep Maxi (TBS6037)
PCR DNA purification (TBS6031)
Gel DNA purification (TBS6033)

This product is for research use only.

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