Tribioscience

DH5α Competent Cells Transformation Kit (Catalog: TBS8041-10, Storage at -80 ℃)

DESCRIPTION

Tribo™ DH5α Competent Cells are an E. coli strain DH5α that provides high transformation efficiencies. Cells can be used in a wide variety of applications for cloning and subcloning. The lacZΔM15 marker provides α-complementation of the β-galactosidase gene, allowing blue/white screening of colonies on plates containing X-gal or Bluo-gal. DH5α competent cells support replication of M13mp vectors but do not support plaque formation.

APPLICATIONS

1) General cloning and subcloning.
2) Blue-white selection.
3) Plasmid DNA amplification.
4) Plasmid isolation.

TRANSFORMATION EFFICIENCY (CFU/UG)

>1x10^9

BLUE-WHITE SCREENING

Yes

REDUCES RECOMBINATION

Yes

CLONING METHYLATED DNA

No

IMPROVES PLASMID QUALITY

Yes

recA DEFICIENT:

Yes

STRAIN

K12

GENOTYPE

F- φ80*lac*ZΔM15 Δ(*lac*ZYA-*arg*F)U169 *rec*A1 *end*A1 *hsd*R17(rk-, mk+) *pho*A*sup*E44 *thi*-1 *gyr*A96 *rel*A1 λ-

KIT CONTENTS FOR 10 TESTS

Name	Size (10 tests)
Competent Cells	10 x 50 µL
pUC19	20 µL
SOC	2 mL

Storage conditions

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

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.
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

Transfection Reagent Maxi (TBS8042)
DH10 Competent Cell Transformation Kit (TBS8043)
BL21 Competent Cell Transformation Kit (TBS8044)
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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