

AD&D Biotech Product Information Sheet

ADD5 α TM

Chemically Competent *E. coli* Cells

Catalog number: 170053, 170057

Components: 10x50 μ l cells (170053), 20x50 μ l (170057), 10 μ l pUC18 (0.1ng/ μ l), 10ml SOC

Efficiency: $\geq 5.0 \times 10^9$ CPU (colony per μ g pUC18)

Tube color: natural with yellow cap

Lot number: on box

Certified by:

Shelf life: 6 months from receipt date

Test conditions: transformations are performed with 50 μ l aliquots of cells and 2 μ l of pUC18 control plasmid (10 pg/ μ l) and without pUC18 following the protocol below with 1hour incubation at 37°C shaker. Dilute the reaction 1:200 with RT SOC and 100 μ l of the dilution is plated in duplicate on LB agar plates with 50 μ g/ml ampicillin. The plates are incubated at 37°C overnight and the efficiency is calculated based on the average number of colonies per plate.

Shipping conditions: on dry ice.

Storage conditions: immediately upon receiving at the bottom of a -80°C freezer.

Transformation Protocol

1. Thaw competent cells on ice. It is essential that cells be completely thawed before pipetting. Pipet slowly. For a more detailed protocol, please visit www.addbiotech.com.
2. Transfer 50 μ l cells to a prechilled Falcon 352059 tube, add DNA of your choice (pure DNA or ligation mix) to the cells and incubate on ice for 30 minutes (may use 5 min for subcloning). Heat-shock at 42°C for 30 seconds and put the tube on ice for 2 minutes.
3. Add 950 μ l SOC and shake the cells at 37°C at 225 rpm for 30-60 minutes.
4. Plate out desired amount on a prewarmed (37°C) plate with the appropriate antibiotic and incubate in a 37°C incubator.

About ADD5 α TM cells

Our 5.0×10^9 CPU ADD5 α TM competent cells, unlike other competent cells which claim similar CPU, carry no common antibiotics resistance and therefore can be used with *E. coli* plasmid with any common antibiotics resistance. They are appropriate for cDNA library construction and routine subcloning. Cells provide α -complementation of the β -galactosidase gene for color

selection and carry *recA1* and *endA1* makers, which minimizes recombination and enhance plasmid quality. Its genotype is *endA1 recA1 relA1 gyrA96 hsdR17(trk⁻, mkr⁺) phoA supE44 thi-1 Δ (lacZYA-argF)U169 Φ 80 Δ (lacZ)M15 F[']*. Comparable to DH5 α , a trademark of LTI.

5 min Transformation Protocol

1. Thaw competent cells on ice.
2. Transfer 50 μ l cells to a prechilled microcentrifuge tube or Falcon 352059 tube, add DNA of your choice (pure DNA or ligation mix) to the cells and incubate on ice for 5 minutes.
3. Plate out desired amount on a prewarmed (37°C) plate with the appropriate antibiotic and incubate in a 37°C incubator.

The transformation efficiency of the quick protocol is lower than that of the regular protocol but should be sufficient for subcloning.

Related Products:

Cat #: 30015M, FastgrowTM plate mix, for 500ml volume, sufficient to make 18-20 plates (100mm x 15mm). It can accelerate *E. coli* growth by 2-4 hr to pickable size on plate, depending on strains.

Cat #: 30025M, FastgrowTM liquid mix, for 500ml. It can accelerate *E. coli* growth in liquid.

Cat#: 170017, FastgrowTM 1×10^9 chemically competent *E. coli* cells.

Cat#: 170047, ADD5 α TM $\geq 1 \times 10^9$ chemically competent *E. coli* cells.

Cat#: 170067, Bac-KingTM $\geq 1 \times 10^{10}$ chemically competent *E. coli* cells.

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