TOP10 Chemically Competent Cell

Cat. No. *ACC-129*

Lot. No. (See product label)

Product Name

TOP10 Chemically Competent Cell

Product Overview

The genotype of TOP10 Chemically Competent Cell is F- mcrA Δ(mrr-hsdRMS-mcrBC) φ80 lacZΔM15Δ lacX74 recA1 araΔ139Δ(ara-leu)7697 galU galK rpsL (StrR) endA1 nupG, which is highly similar to DH10B (DH10B is galE15 and TOP10 is galU). The TOP10 strain, derived from MC1061 strain, is one of the most commonly used competent cells in the laboratory. TOP10 grows faster (faster than DH5 alpha, but slower than mach1-t1). The clone will be visible in 10 h. The mutations of recA1 and endA1 are beneficial to the stability of inserted DNA and the extraction of high purity plasmid DNA. The TOP10 Chemically Competent Cell can be used in cloning, blue and white spot screening, and has streptomycin resistance.

Kit Components

TOP10: 100 μL/tube * 20 tube /100 tube;

Assay Protocol

1. The TOP10 chemically competent cells stored at -80 °C were partially melted at room temperature or in the palm of the hand, and inserted into the ice when mixed with ice and water.
2. Add target DNA plasmids or ligation products to certain volume of competent cells; incubate on ice for 25 min.
3. Heat treatment at 42 °C for 45 s, then incubate on ice for 2 min.
4. Add 700 μL of antibiotic-free LB liquid medium and shake at 200 rpm for 60 min at 37 °C.
5. After centrifugation at 5000 rpm for 1 min, the cells were collected, and about 100 μL of the supernatant was gently used to resuspend the cells, and then the solution was applied to the LB plate containing the corresponding antibiotic.
6. The plate was cultured inverted overnight at 37 °C; for blue and white spot screening, the plate was cultured at least for 13 h.

Transformation efficiency

Transformation efficiency of TOP10 Chemically Competent Cell using pUC19 plasmid with 50 μg/mL kan is >10^8 cfu/μg DNA.

Storage

Store at - 80 °C for 12 months.

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