Ver. HB221028

# TOP10 Chemically Competent Cell

## Product description

TOP10 Chemically Competent Cell from YEASEN is the competent cells obtained by the special process of *Escherichia coli* strain TOP10 with Streptomycin (StrR) resistance. It can be used for the chemical transformation of DNA with the conversion efficiency up to $10^8$ cfu/μg plasmid DNA. It is widely used for efficient DNA cloning and plasmid amplification, and can ensure stable inheritance of high-copy plasmids. At the same time, it can be used to construt clones, blue/white colony screening.

TOP10 competent cell genotypes: F-*mcrA* △(*mrr-hsd*RMS-*mcr*BC) ϕ80*lac*Z△M15 △*lac*X74 *rec*A1 *ara*△139 △(*ara-leu*) 7697 *gal*U *gal*K *rps*L (StrR ) *end*A1 *nup*G.

## Components

| Components No. | Name | 11801ES80 | 11801ES92 |
|---|---|---|---|
| 11801 | TOP10 Chemically Competent Cell | 10×100 μL | 100×100μL |

## Specifications

| | |
|---|---|
| Species | *Escherichia coil* |
| Cell type | Chemical competent cell |
| Whether it contains an F’ episome | No |
| Efficiency | >1×10^8 |
| Blue/white colony screening | Yes |
| Bacterial or yeast strains | TOP10 |
| Amplification of the ccdB-containing vector | It is not suitable for amplification of ccdB-containing vectors |

## Shipping and Storage

The product is shipped with dry ice and can be stored at -85°C~-65°C for six months. Do not store the product in -20°C or liquid nitrogen.

## Instructions

1. Take 100 μL of competent cells, ice bath, thaw (approximately 5 min)。
2. Add the DNA of interest to the thawed competent cell suspension immediately, gently flick well, and let stand in an ice bath for 25 min.
   【Note】: Do not add more than one-tenth of the volume of competent cell suspension.
3. Place the EP tube in a 42°C water bath for 45 sec, then quickly transfer to ice and let stand for 2 min.
   【Note】: Do not shake during this process, otherwise it will reduce the conversion efficiency.
4. Add about 700 μL of antibiotic-free LB or 2YT medium to the centrifuge tube, mix well and recover at 37 °C at 200 rpm for 60 min.
5. Collect the bacteria by centrifugation at 5000 rpm for 1 min, leave about 100 μL of supernatant coating onto a plate containing the corresponding antibiotic, and incubate at 37°C overnight. For blue/white colony screening,

incubate the plate at 37°C for at least 13 h.

## Notes

1. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety!
2. For research use only.