*Trans*2-Blue Chemically Competent Cell

Please read the manual carefully before use

Cat. No. CD411

Version No. Version 1.1

Storage: at -70°C or below for one year. Do not store in liquid nitrogen.

Description

*Trans*2-Blue Chemically Competent Cell is specifically designed for chemical transformation of DNA. It permits a transformation efficiency of over 10^8 cfu/μg DNA (tested by pUC19 plasmid DNA). The competent cell is resistant to tetracycline (Tet^R) and chloramphenicol (Cam^R).

Genotype

Tet^RΔ(*mcr*A)183Hte[F′{*pro*AB *lac*I^q *lac*ZΔM15*Tn*10(Tet^R)AmyCam^R}]Δ(*mcr*CB-*hsd*SMR-*mrr*)173 *end*A1 *sup*E44 *thi*-1 *rec*A1 *gyr*A96 *rel*A1

Features

- High transformation efficiency (>1×10^8 cfu/μg DNA).
- Suitable for larger plasmids and recombinant products.
- Reduced preference for plasmid size, suitable for library construction.
- Used in Blue/White selection.

Procedures

- Thaw a vial of 100 μl of *Trans*2-Blue Chemically Competent Cell on ice, aliquot 50 μl of the cells into a prechilled 1.5 ml tube, add target DNA into the tube. Mix gently. Incubate the cells on ice for 30 minutes.
- Heat-shock the cells for 30 seconds at 42°C without shaking. Immediately transfer the tube to ice. Incubate on ice for 2 minutes without shaking.
- Add 500 μl of sterile SOC medium or LB medium (without antibiotic) into the tube, mix well and shake at 37°C for 1 hour at 200 rpm for cell recovery.
- According to the experimental requirements (transformation of plasmid or recombinant ligation product), spread different volumes of transformed competent cells on LB agar plates containing corresponding antibiotics. Evenly spread the cells. Incubate the plates at 37°C until the liquid is absorbed. Invert the plates and incubate at 37°C overnight.

Notes

- Higher efficiency transformation can be achieved by transforming cells immediately following thawing.
- Avoid repeated thawing.
- Gentle handling is required for the entire procedure.
- Do not mix by pipetting up and down.

For research use only, not for clinical diagnosis.

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