

DMT Chemically Competent Cell

Cat. No. CD511

Storage: at -70°C for six months. Do not store in liquid nitrogen.

Features

- High transformation efficiency: $>10^8$ cfu/ μ g (pUC19 DNA).
- Resistance to T1 and T5 phage.
- *In vivo* digestion of methylated DNA, suitable for site-directed mutagenesis.

Genotype

F- ϕ 80 *lacZ* Δ M15 Δ (*lacZYA*-argF)U169 *recA1 endA1 hsdR17*(r_k^- , m_k^+) *phoA supE44 thi-1 gyrA96 relA1 tonA*

Procedures

- Equilibrate a water bath to 42°C.
- Warm a vial of SOC medium or LB medium to room temperature. Warm selective plates at 37°C for 30 minutes.
- Thaw a vial of 50 μ l DMT Chemically Competent Cell on ice, add target DNA (1 to 5 μ l) into the tube as soon as the last bit of ice in the tube disappeared and mix gently. Do not mix by pipetting up and down. Incubate the cells on ice for 30 minutes.
- Heat-shock the cells for 45 seconds at 42°C without shaking. Immediately transfer the tube to ice. Incubate on ice for 2 minutes without shaking.
- Add 500 μ l of prewarmed SOC medium or LB medium (without antibiotic) into the tube. Cap the tube tightly and shake the tube at 37°C for 1 hour at 200 rpm.
- Spread 20 to 200 μ l from each transformation vial on prewarmed selective plate. The remaining can be stored at 2-8°C and plated the next day if needed.
- Invert the plate and incubate at 37°C overnight.
- Select colonies and analyze by restriction enzyme digestion, PCR, or sequencing.

Notes

- Higher efficiency transformation can be achieved by transforming cells immediately following thawing.
- Avoid repeated thawing.
- Gentle handling is required for the entire procedure.

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