

# DMT Chemically Competent Cell

**Cat. No.** CD511

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

## Features

- High transformation efficiency:  $>10^8$  cfu/ $\mu$ g (pUC19 DNA).
- Resistance to T1 and T5 phage.
- *In vivo* digestion of methylated DNA.

## Genotype

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

## Procedures

- Thaw a vial of 50  $\mu$ l DMT Chemically Competent Cell on ice, add target DNA into the tube as soon as the last bit of ice in the tube disappeared and mix gently. Incubate the cells on ice for 20-30 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  $\mu$ l of sterile SOC medium or LB medium (without antibiotic) into the tube. Mix well and incubate at 37°C with shaking at 200 rpm for 1 hour to allow bacterial 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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