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Products For Life Sciences

Trans109 Chemically Competent Cell

Cat. No. CD301

Storage: at -70°C for six months

Description

Trans109 Chemically Competent Cell is specifically designed for chemical transformation of DNA. It permits a transformation efficiency of over 10^8 cfu/ μ g DNA (tested by pUC19 plasmid DNA).

Genotype

*endA1 recA1 gyrA96 thi-1 hsdR17 (r_k⁻, m_k⁺) relA1 supE44 D (lac-proAB) [F'*traD36 proAB laqI* Δ M15]*

Features

- High transformation efficiency: $>10^8$ cfu/ μ g (pUC19 DNA).
- The lowest homologous recombination favorable for plasmid DNA preparation.
- Routine cloning.
- Blue/white selection.

Procedures

- Thaw a vial of 100 μ l Trans109 Chemically Competent Cell on ice, aliquot 50 μ l of the cells into a prechilled 1.5 ml tube, add target DNA into the tube and mix gently. Incubate the cells on ice for 30 minutes.
- Heat-shock the cells for 45 seconds at 42°C, and then quickly remove the vial from the 42°C water bath and place them on ice for 2 minutes. Do not shake the tube during this procedure.
- Add 500 μ l of sterile SOC medium or LB medium (no antibiotic) into the tube, mix well and shake at 37°C for 1 hour at 200 rpm to resuscitate cells.
- According to the experiment requirement (plasmid, transformation of recombinant ligation product), add different volumes of transformed cells into corresponding antibiotic-containing LB medium. Spread the transformed cells on selective plate. Invert the plate and incubate at 37°C overnight.

Notes

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

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