

## TransStbl3 Chemically Competent Cell

Cat. No. CD521

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

### Description

TransStbl3 Chemically Competent Cell is specifically designed for chemical transformation of DNA. It permits a transformation efficiency of over  $10^8$  cfu/ $\mu$ g DNA (tested by pUC19 plasmid DNA).

### Genotype

F<sup>-</sup> *merB mrr hsdS20*(r<sub>B</sub><sup>-</sup>, m<sub>B</sub><sup>-</sup>) *recA13 supE44 ara-14 galK2 lacY1 proA2 rpsL20* (Str<sup>R</sup>) *xyl-5  $\lambda$ - leu mtl-1*

### Features

- Suitable for lentivirus and retrovirus vector plasmid vectors transformation.
- Reduced the frequency of homologous recombination of long terminal repeats.
- High transformation efficiency:  $>10^8$  cfu/ $\mu$ g (pUC19 DNA).

### 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 100  $\mu$ l of TransStbl3 Chemically Competent Cell on ice, aliquot 50  $\mu$ l of the cells into a prechilled 1.5 ml tube, add target DNA (1 to 5  $\mu$ l) into the tube. 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  $\mu$ l of prewarmed 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 and for the expression of antibiotic resistance.
- Spread 20 to 200  $\mu$ l from each transformation vial on a 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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