enzynomics
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# JM109 Chemically Competent *E.coli*

| Cat.# | Size |
|---|---|
| CP910 | 1.1 ml (100 µl X 11 tubes) |
| CP911 | 2.1 ml (100 µl X 21 tubes) |

**Expire date:**

**Store at -80℃**

**Supplied with:** S.O.C media
pUC19 (50 pg/µl)

*For Research Use Only. Not for use in diagnostic procedures.*

ISO9001 ISO14001 ISO13485

## Product description

This product contains highly efficient competent cells prepared from *E. coli* JM109. They can be transformed by supercoiled plasmid DNA (pUC19) with a high efficiency (1 x $10^8$ cfu/µg). This product is appropriate for plasmid amplification, transformation of ligated DNA and general cloning.

## Characteristics

- Strain : JM109
- Genotype : F' traD36 proA+ proB+ laclq △(lacZ)M15 △(lac-proAB) supE44 hsdR17 recA1 gyrA96 thi-1 endA1 relA1 e14- λ-

## Applications

- Amplification and purification of plasmid DNAs
- Construction of genomic DNA and cDNA libraries
- General cloning

## Quality control

- Transformation efficiency : ~1 x $10^8$ cfu/µg of pUC19

## Cautions

- It is appropriate to use such antibiotics at their recommendable concentrations: ampicillin (50 µg/ml), kanamycin (25 µg/ml), and tetracycline (12.5 µg/ml)
- Higher antibiotic concentrations will cause decreased transfection efficiency while lower antibiotic concentrations will cause the increased number of satellite colonies.
- False-positive colonies can appear if cells are cultured at 37℃ for 18-24 hr.

## Limitation of Liability

In no event will Enzynomics be liable for any direct, indirect, consequential, or incidental damages arising out of the use, the results of use, or the inability to use this product.

## Transformation of competent cells

Take out S.O.C media and warm up to room temperature in advance.

→ Thaw a tube containing competent cells on ice.
→ Add 1~10 µl of DNA sample to the tube and mix gently.
→ Leave on ice for 30 min.
→ Apply heat-shock at 42℃ for 30 sec and leave on ice for 2 min.
→ Add 400 µl of S.O.C media (prewarmed to room temperature) to each tube on a clean bench.
→ Incubate for 1 hr at 37℃ in a shaking incubator.
→ Plate 20-200 µl of the sample on plates (prewarmed to room temperature).
→ Incubate overnight at 37℃. Turn the plates upside down during incubation. Examine colonies on the next day.

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