enzynomics
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Rosett(DE3) Chemically Competent *E.coli*

Cat.#	Size
CP1010	1.1 ml (100 µl X 11 tubes)
CP1011	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* Rosett(DE3). The competent cells can be transformed by supercoiled plasmid DNA (pUC19) with high efficiency. This product can be used for general cloning, plasmid amplification, and transformation using ligated DNA.

The convenient and efficient construction of plasmid recombinants can be done with these competent cells, which are grown and then made chemically competent via an optimized procedure before the verification of cloning efficiency and strain identity. This product also can be used for making new expression host with other genetic backgrounds.

As BL21 derivatives genetically designed to improve the expression of eukaryotic genes that contain codons rarely used in *E. coli*, Rosett host strain strains supply tRNAs for AGG, AGA, AUA, CUA, CCC, GGA codons via a compatible chloramphenicol -resistant plasmid. As a result, the Rosett strains facilitate "universal" translation which is otherwise limited by the codon usage of *E. coli*.

DE3 signifies that the host is a lysogen of λDE3, which has a chromosomal copy of the T7 RNA polymerase gene controlled by the lacUV5 promoter. Such strains are appropriate for the protein expression from target genes cloned in pET vectors via IPTG induction.

Characteristics

- Strain : Rosetta(DE3) Chemically Competent *E. coli*
- Genotype: F- ompT hsdSB(rB- mB-) gal dcm (DE3) pRARE (Cam^R)

Applications

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

Quality control

- Transformation efficiency : ≥ 3.0 x 10^6 cfu/µg of pUC19

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.

Rev.181031

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