

User Manual

Version 2.0
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Product name: BL21(DE3)pLysS Competent *E. coli*

Cat #: BP-100, BP-196

Description:

- Chemically competent *E. coli* cells suitable for high yields, high efficiency transformation and protein expression.
- BL21(DE3)pLysS cells carry the lambda DE3 lysogen and pLysS plasmids.
- T7 Expression strain.

Application:

- For expressing proteins in *E. coli*.
- Recommended for use when expressing toxic genes.

Recommended storage condition:

This product should be stored at -80°C. Thaw on ice only before use. Do not re-freeze.

Genotype:

F⁻ *ompT gal dcm*(DE3) *hsdSB*(rB⁻ mB⁻) pLysS(Cam^R)

Protocol:

1. Remove competent cells from -80°C and thaw competent cells on ice.
2. Add 5–10 ng of DNA to 50–100 µl of the cells and mix by tapping gently.
3. Incubate the cell on ice for 30 minutes.
4. Heat-shock the cells for exactly 30 seconds in the 42°C water bath.
5. Place the cells on ice for 2 min.
6. Add 250–500 µl of room temperature S.O.C medium to the cells
7. Shake at 225 rpm for 1 hour at 37°C.
8. Plate two different volumes of the transformation reaction onto LB plates containing the appropriate antibiotic for plasmid selection.
9. Incubate at 37°C overnight.

Note: Clones may exhibit differences in expression of heterologous genes. We recommend choosing 3–4 transformants when characterizing clones for protein expression.