



Product Information

Product: (DE3) Competent Cells Set

Catalogue number: CC-011A/10

Components: 2 x 50 µl OverExpress™ C41 (DE3) Competent Cells^a
2 x 50 µl OverExpress™ C43 (DE3) Competent Cells^b
2 x 50 µl HMS174 (DE3) Competent Cells^c
2 x 50 µl B834 (DE3) Competent Cells^d
2 x 50 µl BL21 (DE3) Competent Cells^e
1 x 10 µl pUC18 plasmid (concentration 10 ng/µl)

Storage: Store at -70°C. Thaw only during use. Do not re-freeze.

Stability: When stored and used as directed, a transformation efficiency greater than 1×10^6 colonies/µg of test plasmid is guaranteed for 6 months from the date of shipment.

Genotypes: a) *F ompT gal hsdS_B (r_B m_B) dcm lon λDE3* and an uncharacterised mutation described in the reference below.
b) *F ompT gal hsdS_B (r_B m_B) dcm lon λDE3* and two uncharacterised mutations described in the reference below.
c) *F recA1 hsdR (r_{K12} m_{K12}⁺) rif λDE3*
d) *F ompT gal hsdS_B (r_B m_B) met dcm lon λDE3*
e) *F ompT gal hsdS_B (r_B m_B) dcm lon λDE3*

References: Miroux B, Walker JE. Over-production of proteins in *Escherichia coli*: mutant hosts that allow synthesis of some membrane proteins and globular proteins at high levels. *J. Mol. Biol.* (1996) **260**, 289-298.
Studier FW. Use of bacteriophage T7 lysozyme to improve and inducible T7 expression system. *J. Mol. Biol.* (1991) **219**, 37-44.

Test conditions: Thaw an aliquot of CaCl₂ competent cells on ice (for up to 10 minutes).
Add 10 ng of plasmid DNA vector containing the gene of interest to a 50 µl aliquot of the cells. Mix by flipping, gently.
Incubate the tube on ice for about 20 minutes.
Place the tube at 42 °C for 2 minutes, then put it back on ice for 3 minutes.
Add 400 µl of LB medium and incubate the tube for 1 hour at 37 °C.
Spread a drop (up to 25 µl) of bacteria on LB-agar Petri plates containing the appropriate antibiotic.
Incubate the Petri plates at 37 °C for 20±4 h.

To maximise protein expression, fresh transformants are strongly recommended.

For Research Use Only

Warranty: Distributor warrants that the product will meet or exceed these specifications when used under normal conditions in customer's laboratory. Distributor will promptly replace the product free of charge if the product does not conform to these specifications. Our obligation and your sole remedy is limited to such replacement should the product prove to be defective. No other warranties are expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Distributor is not liable for consequential damages.

Distributor makes no representation or warranty that use of the MATERIALS will not infringe rights of third parties. In particular, the customer's attention is drawn to the fact that the product contains the T7 RNA polymerase gene. The use of the T7 expression system, developed at Brookhaven National Laboratory under contract with the U.S. Department of Energy and comprising bacteria, bacteriophages and plasmids containing the T7 RNA polymerase gene, is the subject of patent applications assigned to Brookhaven Science Associates LLC. A Licence is required in the United States of America for any commercial use, including use of the T7 system for research purposes or for production purposes by any commercial entity.