Product Information

BP5α™ Competent Cells

Ultra-high Efficiency DH5α Competent Cells

Cat # GACC-5: 5 x 60ul
Cat # GACC-20: 20 x 60µl
Cat # GACC-50: 50 x 60µl
Cat # GACC-96: 96 x 60µl

Storage condition: -80°C

Description:

DH5alpha is one of the most commonly used E. coli strain for plasmid transformation. Ultra-high efficiency DH5alpha Competent Cells are prepared with unique salt compositions and procedures that result in significantly higher transformation efficiency than those by traditional lab protocols using CaCl2 buffers. Biopioneer's competent cells are quality controlled by direct comparison to other leading brands of similar products in transformation of ligated plasmids. Ultra-high efficiency DH5α Competent Cells are suitable for propagation of plasmids of all sizes and preparations. They are recommended for difficult constructs that often yield low colony counts.

Features:

- Widely used strain
- Suitable for 3 min quick protocol
- Efficiency: Constantly above 1 x 10^9 cfu/µg of supercoiled pUC19 plasmid DNA; higher colony counts than DH5α Competent Cells from other leading suppliers, especially when transforming ligation reactions.
- Conveniently packaged in 60ul aliquot, no repeated freezing in dry ice and alcohol bath.
- Blue/white color screening of recombinants

Genotype:

F'/endA1 hsdR17(rK-mK+) supE44 thi-1 recA1 gyrA (Nalr) relA1 D(laclZYA-argF)U169 deoR (F80dlacD(lacZ)M15)

Storage:

It has been observed that long term storage of competent cells at -80ºC can actually cause the cells to adapt by increasing the recombination rate. Therefore, BioPioneer Inc. prepares its competent cells frequently at small scales. It is recommended that competent cells be used within 3 months after arrival.

Transformation Protocol

1. Thaw competent cells on ice. It is essential that cells be completely thawed before pipetting. Pipet slowly.
2. Transfer 60 ul cells to a prechilled Falcon tube, then add DNA of your choice (pure DNA or ligation mix) to the cells and incubate on ice for 30 minutes (may use 5 min for subcloning). Heat-shock at 42°C for 30 seconds and put the tube on ice for 1.5-2 minutes.
3. Add 400ul SOC or LB broth and shake the cells at 37°C at 225 rpm for 30-60 minutes.
4. Plate out desired amount on a prewarmed (37°C) plate with the appropriate antibiotic and incubate in a 37ºC incubator.

Quick Protocol

Quick Protocol:

1. For each transformation, thaw one tube of cells on ice.
2. Mix DNA and cells, incubate on ice for 1-2 min
3. Heat shock in 42°C water bath for 45 sec, or in 37°C water bath for 1.5 min
4. After heat-shock, incubate the reaction on ice for 1 min and spread on plate directly.

The typical 1 hour growing in plain LB may generate 2-3 fold more colonies but is not necessary in most cases.

Warranty

These products are warranted to perform as described in their labeling and in BioPioneer literature when used in accordance with their instructions. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS EXPRESSED WARRANTY AND BIOPIONEER DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR PARTICULAR PURPOSE. BioPioneer's sole obligation and purchaser's exclusive remedy for breach of this warranty shall be, at the option of BioPioneer Inc., to repair or replace the products. In no event shall BioPioneer Inc. be liable for any proximate, incidental or consequential damages in connection with the products.

BioPioneer Inc
8540 Production Ave., Suite A, San Diego, CA 92121
Web: www.biopioneerinc.com Email: info@BioPioneerinc.com
Tel: 858-689-6988 Fax: 858-225-0288