




Gene to Protein Pvt. Ltd.

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 [www.genetoprotein.com](http://www.genetoprotein.com)

 [info@genetoprotein.com](mailto:info@genetoprotein.com)

 800 GENOME, 800 GENETIC



## DH5α Competent Cells

Cat# CCELL-001

Pack Size: 10 vials

Storage: -80°C.

Avoid repeated freeze-thaw cycles.

### Kit content:

S.No	Competent cell	Quantity
1	DH5α	10 vial

### Introduction

DH5α Competent Cells are strain of *E. coli* that are highly efficient at taking up and incorporating foreign DNA. The cells are suitable for use in molecular biology applications, such as transformation, cloning, and plasmid propagation.

### Transformation protocol

1. Thaw one vial of DH5α Competent Cells on ice.
2. Add 1-5 μL (10-100 ng) of DNA to the cells and gently mix by pipetting up and down.
3. Incubate the cells on ice for 10 minutes.
4. Heat shock the cells by incubating them at 42°C for 30-90 seconds, then immediately return them to ice for 10 minutes.
5. Add 1 mL of LB broth and incubate the cells at 37°C for 1 hour with shaking.
6. Centrifuge the cell at 3000 rpm for 3 min
7. Plate the cells onto selective agar plates and incubate overnight at 37°C.

### Quality Control

Each lot of DH5α Competent Cells is tested for transformation efficiency and cell viability. The minimum transformation efficiency is  $1 \times 10^6$  cfu/μg DNA.

### Precautions

1. DH5α Competent Cells are intended for research use only and are not intended for human or animal diagnostic or therapeutic use.
2. Follow good laboratory practices to avoid contamination.
3. Wear appropriate personal protective equipment, such as gloves and lab coats, when handling the cells.
4. DH5α Competent Cells are highly sensitive to temperature changes and should be kept on ice or at -80°C until use.

**Note:** The cost associated with DH5α Competent Cells is solely for the production, testing, and shipment of the cells. No profit is made from the sale of this product. All proceeds are used to support the organization's mission of promoting scientific research and education.