Applied Biological Materials Inc.
Tel: 1-866-757-2414
Email: info@abmGood.com
Website: www.abmGood.com

ProClone™ Competent Cells

Store at -80°C

Cat. No.	Description	Quantity
E003	ProClone™ Competent Cells (5 ml)	4 x 1.25 ml
E003S	ProClone™ Competent Cells (2 ml)	4 x 0.5 ml

Product Description

ProClone™ Competent Cells are high-efficiency, chemically competent DH5α (*E. coli*) cells that are optimized for use with abm's versatile range of expression vectors. Transformation efficiency greater than $1x10^6$ cfu/μg can be achieved using abm's expression vectors, which are typically 3 to 4-fold larger in size and contain more complex genetic elements than the standard pUC19 plasmid. Reduced recombination and high efficiency make ProClone™ Competent Cells the premier choice for both routine and challenging subcloning projects.

Applications

1. Transformation efficiency: >$1x10^6$ cfu/μg with abm's expression vectors
2. Ideal for routine plasmid amplification and subcloning.
3. Reduces recombination and improves yield and quality of plasmid DNA prepared from minipreps; DNA from minipreps can be sequenced directly.
4. Not suitable for preparing unmethylated DNA.

Shipping and Storage

Upon arrival, ProClone™ Competent Cells should be stored at -80°C. Avoid repeated freeze-thaw cycles to retain maximum performance. All components are stable for 1 year from the date of shipping if stored and handled properly.

Protocol

The following protocol serves as a general guideline and may require optimization.

1. Thaw 1 tube of cells on ice for 10-15 minutes, then gently invert tube to thoroughly mix any settled cells. Aliquot 60 μl of cells into a sterile 1.5 ml tube per transformation. Remaining cells can be aliquoted and re-frozen for later use, but expect lower performance from re-frozen cells.

2. Add 10 pg-100 ng of plasmid DNA or 5-10 μl of the subcloning reaction (i.e. ligation) to the cells and mix gently. Incubate the mixture at 4°C for 30 minutes.

3. Heat shock the cells using a waterbath or heat block at 42°C for 45 seconds, then immediately place on ice for 1-2 minutes.

4. Add 150 μl of sterile LB broth containing no antibiotics and incubate the cells at 37°C in a shaking incubator for 1 hour for recovery.

5. Plate the entire volume on LB agar containing appropriate antibiotics and incubate overnight at 37°C.