

CloneStab™

Store and ship live *E. coli* at ambient temperatures

- Protect live bacteria for up to 3 months at room temperature (15-25°C)
- Viable bacterial recovery even after exposure to extreme temperatures (-20°C to 37°C)
- Ideal for transporting live bacteria harboring plasmids

Key benefits:

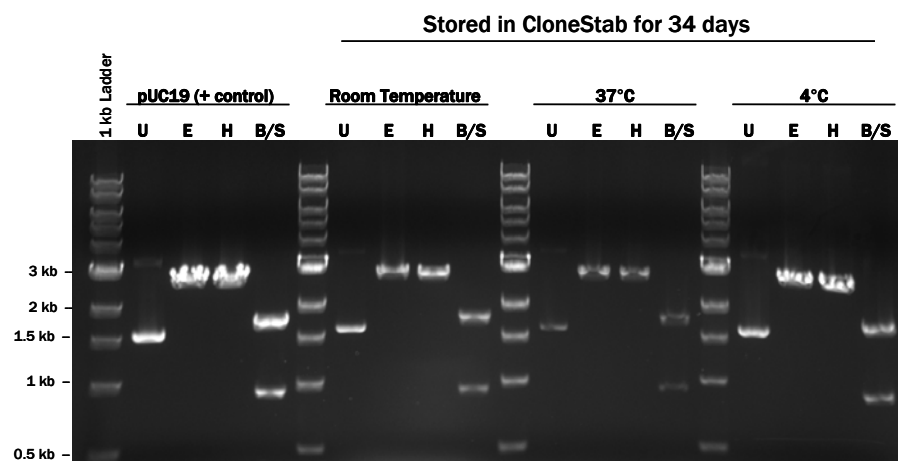
- Storage and shipment of *E. coli* stabilized under restricted bacterial growth conditions
- Room temperature storage ensures viability and genetic integrity
- Easy sample preparation and recovery of viable bacteria
- Eliminate dry-ice shipments
- Protects against plasmid loss and rearrangements

Product Features:

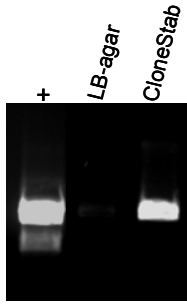
- Format: Individual 1.7 ml snap-cap tubes
- Sample source: Stationary phase *E. coli* cultures grown in selective media
- Sample type: Intended for storage of *E. coli* strains only. Not recommended for use with other bacterial species.
- Initial sample volume: 10 µl of stationary phase sample per tube

CloneStab is designed to protect live *E. coli* strains harboring plasmids during storage and shipment at ambient temperatures. The stabilization medium allows for recovery of viable cells and intact plasmids following storage for up to 3 months at room temperature. Genetic integrity and viability are even protected during exposure to extreme temperature fluctuations (-20°C to +37°C), conditions that are typically experienced during sample shipment. CloneStab has been evaluated for use with multiple strains of *E. coli* harboring plasmids of various sizes. It is easy to use – bacterial samples are applied into the CloneStab tube and are ready for storage or shipment. Recovered bacteria can be used directly in downstream applications such as plasmid purification or propagation on solid growth media (*i.e.* plates).

Protection of bacterial viability and plasmid integrity



The integrity of recovered plasmids following storage of bacteria in CloneStab at various temperatures for 34 days was assessed by restriction enzyme analysis and compared to purified pUC19 (2686 bp) stored frozen (+ control). Digestion with EcoRI (E) and HindIII (H) linearized the plasmid, while BamHI and ScaI results in fragments of 938 bp and 1748 bp. Results indicate that the integrity of plasmids recovered from bacteria stored in CloneStab is preserved and intact as compared to control pUC19 plasmid. Bacteria viability and plasmid integrity are also protected during storage in CloneStab even after exposure to extreme temperature for prolonged time periods.



Bacteria strain DH10 β harboring pUC19 plasmids are viable after 3 months storage at 37°C when protected in CloneStab. Bacteria were stored in LB-agar (control) for the identical time period. Selective growth media was added directly to tubes and incubated overnight at 37°C to assess viable cell recovery. Plasmids were recovered from the overnight bacterial cultures using standard methods and digested with EcoRI restriction enzyme to assess plasmid integrity. Results indicate improved recovery of viable bacteria and appropriate plasmids from CloneStab as compared to LB-agar (compare lanes). (+): pUC19 plasmid stock.

Procedure:

Stationary phase bacterial cultures grown in selective media are deposited directly into tubes containing CloneStab. CloneStab is designed to minimize bacterial growth and cells can be conveniently stored at room temperature and are even protected at extreme temperatures for intermediate time periods (up to 3 months at 37°C). Viable bacteria can be recovered by the addition of selective growth media and incubating overnight at the appropriate temperature. The resultant bacteria culture is ready for immediate use in downstream applications.

Applications:

Bacteria recovered from CloneStab can be used for the following applications:

- Shipping bacterial samples
- Propagation on solid growth media (i.e. agar plates)
- Long-term storage on solid media (i.e. agar stabs)
- Preparation of glycerol stocks
- Plasmid purification

CloneStab is available in the following format:

93121-018: CloneStab Tube Kit (25 tubes)

For ordering information, please call 866-379-6879 or visit www.biomatrica.com