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**Product: CalTech Human BAC Clones (CTB, CTC, CTD)**

Catalog #: BHS1214



The Hiroaki Shizuya laboratory at the California Institute of Technology has developed three distinct human BAC libraries that Open Biosystems is proud to make available to the research community. The Cal Tech B (CTB) and Cal Tech C (CTC) libraries together represent a genomic coverage of 15X. The Cal Tech D (CTD) library represents a 17X coverage of the human genome. Whole collections as well as individual clones are available for purchase. Detailed information on the construction of the libraries can be found at [http://informa.bio.caltech.edu/idx\\_www\\_tree.html](http://informa.bio.caltech.edu/idx_www_tree.html).

**Storage**

- 4°C for up to one week
- 80°C indefinitely

**Product Description**

Bacterial culture of *E. coli* DH10B in LB broth with an inert growth indicator + 8% glycerol + chloramphenicol (black cap) at a concentration of 25µg/mL.

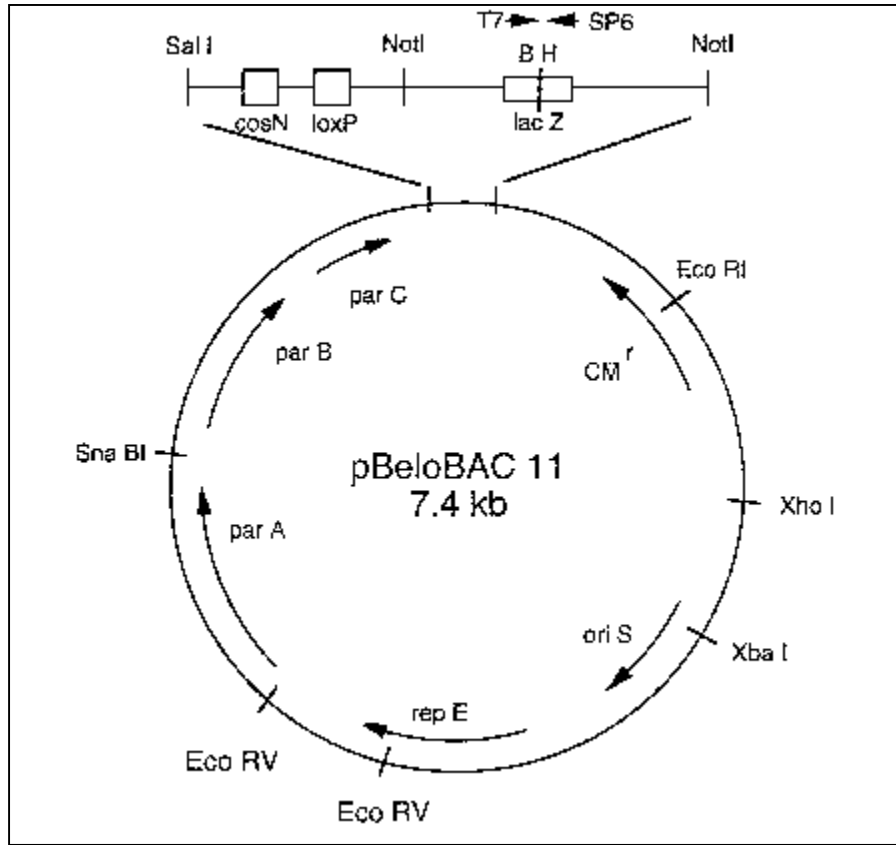
**Making a stock culture**

Once the clone has been streak isolated and the identity of the strain has been confirmed, we recommend making a stock of the pure culture. Grow the pure culture in LB broth + chloramphenicol at a concentration of 25µg/mL. Transfer 920µL of culture into a polypropylene tube and add 80µL sterile glycerol to make an 8% glycerol freezing solution. Vortex the culture to evenly mix the glycerol throughout the culture. The culture can be stored indefinitely at -80°C.

| Library Name | Plate Numbers | Source Material   | Avg. Insert Size | Cloning Site |
|--------------|---------------|-------------------|------------------|--------------|
| CTB          | 1-194         | 987SK cells       | 120 kb           | HindIII      |
| CTC          | 195-879       | human sperm (HSP) | 125 kb           | HindIII      |
| CTD          | 2,001-2,423   | human sperm (HSP) | 129 kb           | HindIII      |
| CTD          | 2,501-2,565   | human sperm (HSP) | 202 kb           | EcoRI        |
| CTD          | 2,566-2,671   | human sperm (HSP) | 182 kb           | EcoRI        |
| CTD          | 3,000-3,253   | human sperm (HSP) | 142 kb           | EcoRI        |
| CTD          | 3,254+        | human sperm (HSP) | 166 kb           | EcoRI        |

**Maps and sequence information for pBeloBAC11**

Map can be found at [http://informa.bio.caltech.edu/idx\\_www\\_tree.html](http://informa.bio.caltech.edu/idx_www_tree.html) under protocols, under "Construction of the BAC library" (See Figure 1)  
 Sequence: Genbank accession - U51113 (<http://www.ncbi.nlm.nih.gov/>)



**Figure 1: Vector map of pBeloBAC11<sup>1,2</sup>**  
 Webshot courtesy of Caltech Genome Research Laboratory website.

### Useful websites and references

GenBank on NCBI <http://www.ncbi.nlm.nih.gov/>

Information on the CalTech libraries [http://informa.bio.caltech.edu/idx\\_www\\_tree.html](http://informa.bio.caltech.edu/idx_www_tree.html)

<sup>1</sup> Wang, K. *et al.* (1997) Complete nucleotide sequence of two generations of a bacterial artificial chromosome cloning vector. *Biotechniques* Dec;23(6):992-4.

<sup>2</sup> Hiroaki Shizuya, Bruce Birren, Ung-Jin Kim, Valeria Mancino, Tatiana Slepak, Yoshiaki Tachiiri, and Melvin I. Simon (1992) A bacterial cloning system for cloning large human DNA fragments. *Proc. Natl. Acad. Sci., USA*, 89:8794-8797.