
Product: Mere Mouse BAC Collection

Catalog #: BMM1036



Dr. Julie Korenberg's lab at Cedars-Sinai Medical Center has created a resource of 156 fluorescent in-situ hybridization (FISH) mapped BAC clones spanning the mouse genome at an average resolution of 19 Mb. Forty-two of these clones are linked to the centromeric and telomeric ends of the Whitehead/MIT recombinational maps. These clones can be used in gene mapping and genetic analyses in fetal and adult mouse models.¹ The project website can be found at <http://www.csmc.edu/genetics/korenberg/korenberg.html>.

Storage

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

Product Description

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

Replicating Plates

1. Prepare target plates by dispensing ~160µL of LB + 8% glycerol + the appropriate antibiotic into each well.
2. Remove the lids of the first source plate and target plate, allowing the source plate to thaw before you begin replication.
3. Gently place the Q-Rep into the source plate and lightly move the Q-rep around inside the well to stir the culture. Make sure to scrape the bottom of the well.
4. Pull the Q-rep out of the source plate and gently place into target plate and mix gently in the same manner.
5. Dispose of Q-rep into a biohazard container. Autoclave used Q-reps when finished.
6. Replace the lids of the source and target plates.
7. Repeat steps 1-5 until all plates have been replicated.
8. Return the source plates to the freezer.
9. Place the inoculated target plates inside a 10"x12" Ziploc bag (maximum of 10 plates per bag). Place the bagged plates in a 37°C incubator for 24 hours.
10. Check the target plates for growth on the following day.
11. Place the target plates showing growth into the freezer. (You may have to retry growing individual clones that don't initially grow.)
12. After plates are frozen, seal all of the source and target plates by placing an aluminum plate seal over the frozen plate and securing the seal with a rolling device.

Note: If you do not have a Q-rep replicator, you can use a multichannel pipettor to transfer ~10 µl of culture from each well of the source plate to the target plate.

BAC clone details

Library of origin: CITB mouse BAC library
 Tissue library was constructed from: CJ7/129SV embryonic stem (ES) cells²
 Vector: pBeloBAC11
 Average insert size: 130Kb

Map and sequence information for the vector

pBeloBAC11 – Map can be found at
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/>

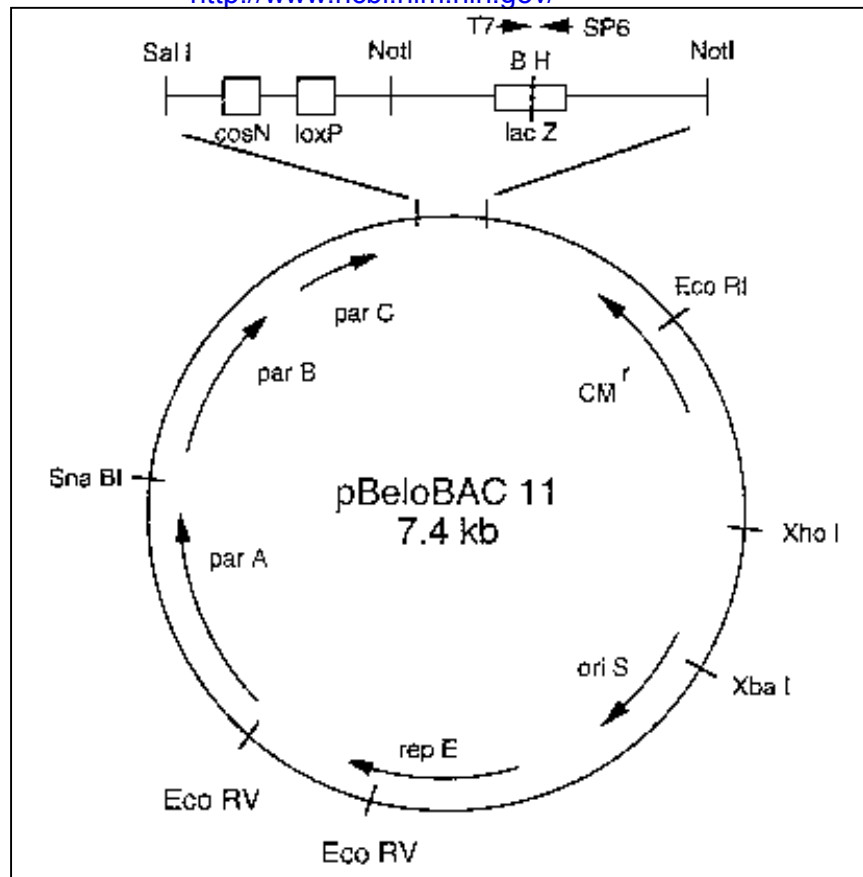


Figure 1: Vector map of pBeloBAC11^{3,4}
 Webshot courtesy of the Caltech Genome Research Laboratory
 website. http://informa.bio.caltech.edu/idx_www_tree.html



Useful websites and references

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

Information on Dr. Korenberg's collection
<http://www.csmc.edu/genetics/korenberg/korenberg.html>

Information on the CITB Mouse BAC library
http://informa.bio.caltech.edu/idx_www_tree.html

¹ Korenberg, J.R., *et al.*, Mouse molecular cytogenetic resource: 157 BACs link the chromosomal and genetic maps, *Genome Res.*, 9(5):514-23, 1999.

² Swiatek, P.J. and T. Gridley, *Genes and Development*, 7:2071-2084, 1993.

³ Wang, K. *et al.* (1997) Complete nucleotide sequence of two generations of a bacterial artificial chromosome cloning vector. *Biotechniques*. Dec;23(6):992-4.

⁴ 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.