

Resource Summary Report

Generated by [dkNET](#) on Sep 20, 2026

BACRB - Parallel Sequencing of Barcoded BAC Clones by random tagging PCR

DOI:10.17504/protocols.io.p3adqie

Type: Protocol

Proper Citation

Elena Hilario, Marcus Davy, Roy Storey, Richard Newcomb, Ross N Crowhurst, Roger P Hellens 2018. BACRB - Parallel Sequencing of Barcoded BAC Clones by random tagging PCR. protocols.io dx.doi.org/10.17504/protocols.io.p3adqie

Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.p3adqie>

Authors: Elena Hilario, Marcus Davy, Roy Storey, Richard Newcomb, Ross N Crowhurst, Roger P Hellens

Summary: A genome is assembled by connecting large scaffolds via a collection of thousands of mate-paired ends of various sizes (3-20 kbp). Terminal ends of long DNA fragments can be obtained by sequencing large insert clones by Sanger sequencing, a labour-intensive and expensive approach. Here we describe a high-throughput protocol to tag 11,520 BAC plasmids randomly with barcoded oligonucleotides at the end of a random hexamer by PCR. This method assisted the kiwifruit (*Actinidia chinensis*) genome assembly in a similar way as mate paired end datasets. Although not fully sequenced, each randomly tagged BAC clone provides a collection of short sequence tags mapped to a genome across one or multiple scaffolds under three different scenarios: validate a single scaffold, join two scaffolds, or group several scaffolds by proximity only. Our method provides a simple way of cataloging BAC libraries to assist genome assembly projects.

Affiliations: Plant and Food Research, Plant and Food Research, Plant and Food Research, Plant and Food Research, Plant and Food Research, Queensland University of Technology

External URL: <https://bmcbgenomics.biomedcentral.com/articles/10.1186/s12864-018-4656-3>

Version: 1

Publication Date: 2018

Proper Citation: Elena Hilario, Marcus Davy, Roy Storey, Richard Newcomb, Ross N Crowhurst, Roger P Hellens 2018. BACRB - Parallel Sequencing of Barcoded BAC Clones by random tagging PCR. protocols.io [dx.doi.org/10.17504/protocols.io.p3adqie](https://doi.org/10.17504/protocols.io.p3adqie)

Record Creation Time: 20210329T220525+0000

Record Last Update: 20210329T220917+0000

Data and Source Information

Source: