BigEasy® v2.0 Linear Cloning System

Maximum insert stability

- **Efficiently clone any insert up to 30 kb.**
- **Create libraries from A/T-rich or G/C-rich genomes.**
- **Clone gene clusters or operons.**
- **Inducible copy number.**

The BigEasy Kit with the pJAZZ vector is ideal for constructing bias-free, large-insert genomic libraries, or for cloning difficult DNA of any size up to 30 kb. Because the novel pJAZZ vector is maintained as a linear molecule, the ends of the vector can rotate freely (Fig. 1). As a result, the vector does not supercoil. Without the torsional stress induced by supercoiling, otherwise unclonable sequences (e.g., repetitive, or A/T-rich or G/C-rich sequences) are stabilized (Fig. 2). The pJAZZ linear cloning vector is maintained at low copy number (5-10/cell) in BigEasy-TSA™ Electrocompetent Cells, which are required for transformation and propagation. The copy number can be induced 5-10X in this strain. In addition, the pJAZZ vector incorporates Lucigen's CloneSmart® technology for transcription-free cloning, which further increases insert stability. The pJAZZ vector can be isolated using standard plasmid prep methods.

Convenient Success

The BigEasy v2.0 Kits eliminate tedious vector and competent cell preparation, as well as time-consuming QC testing. Kits include optimized reagents, ligation-ready vector, highly efficient electrocompetent cells, detailed instructions, and trouble-shooting guides.

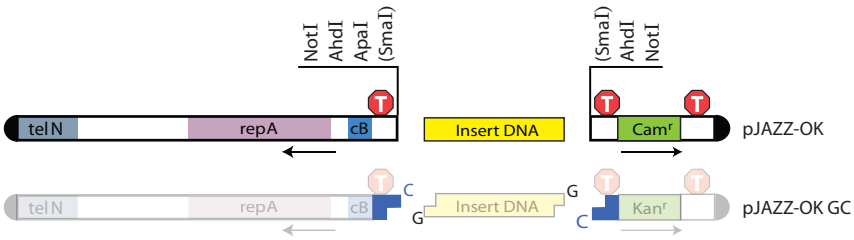

Figure 1. pJAZZ-OC and pJAZZ-OK linear vectors. RepA, replication factor and low copy origin of replication (~2-4 per cell; inducible 5-10 fold); Camr - chloramphenicol resistance gene; Kanr - kanamycin resistant gene; telN - protelomerase gene; cB - replication regulator. Approximate positions of transcription terminators (T) are indicated.

96% AT rich DNA

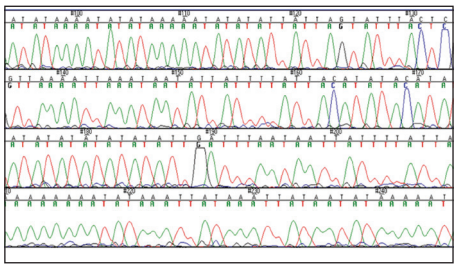

Figure 2. Sequence trace of a *Piromyces* clone showing extremely high AT content.

6-20 kb *Oxytricha* inserts

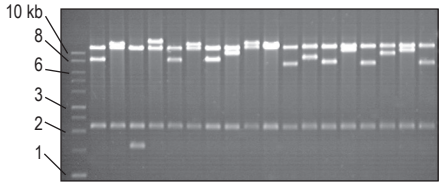

Figure 3. Oxytricha trifallax genomic DNA (75-85% AT) was sheared to 6-20 kb and cloned into the pJAZZ linear vector. NotI digests of mini-prep DNA are shown.

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Lucigen®
Simplifying Genomics

BigEasy® v2.0 Linear Cloning System cont.

Products	Size	Cat. No.	Price
BigEasy v2.0 Linear Cloning Kit (pJAZZ-OC Blunt Vector) w/BigEasy-TSA Electrocompetent Cells (SOLOs)	5 reactions	43018-1	$275
	10 reactions	43018-2	$468
	20 reactions	43018-3	$838
BigEasy v2.0 Linear Cloning Kit (pJAZZ-OC NotI Vector) w/BigEasy-TSA Electrocompetent Cells (SOLOs)	5 reactions	43024-1	$275
	10 reactions	43024-2	$468
	20 reactions	43024-3	$838
BigEasy-TSA Electrocompetent Cells (≥ 4 x 10^{10} cfu/mg) (SOLOs)	6 reactions	60224-1	$138
	12 reactions	60224-2	$234
	24 reactions	60224-3	$431
BigEasy v2.0 Linear Cloning Kit (pJAZZ-OK Blunt Vector) w/BigEasy-TSA Electrocompetent Cells (SOLOs)	5 reactions	43036-1	$275
	10 reactions	43036-2	$468
	20 reactions	43036-3	$838
BigEasy v2.0 Linear Cloning Kit (pJAZZ-OK NotI Vector) w/BigEasy-TSA Electrocompetent Cells (SOLOs)	5 reactions	43042-1	$275
	10 reactions	43042-2	$468
	20 reactions	43042-3	$838

Select your cloning kit with ease!

*lucigen.com/clonin**gguide***

ORDER INFORMATION

The BigEasy® Linear Cloning Kit includes: Dephosphorylated pJAZZ® Vector pre-cut at either a *Sma*I (blunt) or *Not*I site, CloneSmart® DNA Ligase, CloneDirect™ 10X Ligation Buffer (includes ATP), DNATerminator® End Repair Enzyme & 5X End Repair Buffer (Blunt Kit only), Sequencing Primers, Positive Control Insert DNA, BigEasy-TSA Electrocompetent Cells in SOLO packaging (1 transformation per tube), Recovery Medium, Transformation Control DNA, and complete protocols. BigEasy-TSA Electrocompetent Cells are also available separately.

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