



**Figure 2.** The HyperMu™ <R6K $\gamma$ ori/KAN-1>Tnp Transposome™ can be electroporated into living cells where it randomly inserts the transposon component into the host's genomic DNA. The HyperMu Transposon insertion site can be analyzed by a variety of methods.

### Strategies That Use Both EZ::TN and HyperMu Transposon Systems

Since EZ::TN and HyperMu Transposases do not recognize the same end sequences for transposition, they can also be used in strategies in which it is desirable to use more than one transposon system. For example, EPICENTRE scien-

tists have "rescued" plasmids and other episomes from heterologous bacterial systems that are not capable of replicating in *E. coli* by inserting into them an *E. coli* ori-containing EZ::TN Transposon. Then, the plasmid or episome can be completely sequenced following *in vitro* insertion of a HyperMu Transposon.

### References

1. Mizuuchi, K. (1983) *Cell* **35**, 785.
2. Chaconas, G. and Harshey, R.M. (2002) In: *Mobile DNA II*, Ed. by N.L. Craig *et al.*, ASM Press, Washington, D.C., Chapter 17, pp. 385-402.
3. Butterfield, Y.S.N. *et al.* (2002) *Nucleic Acids Research* **30**, 2460.
4. Savilahti, H. *et al.* (1995) *EMBO J.* **14**, 4893.

[www.epicentre.com/transposomics.asp](http://www.epicentre.com/transposomics.asp)

#### HyperMu™ <KAN-1> Insertion Kit

HMI032K 10 Reactions

#### HyperMu™ <R6K $\gamma$ ori/KAN-1>Tnp Transposome™ Kit

MTS32RK 10 Reactions

#### HyperMu™ Transposase

THM03210 10 U

\* The use of Transposome™ complexes for *in vivo* insertion of a transposon, including, but not limited to HyperMu™ and EZ::TN™ Transposome™ complexes, is covered by U.S. Patent No. 6,159,736 and related patent applications, exclusively licensed to EPICENTRE.



## Phage T1-Resistant Electrocompetent *E. coli* with a Transformation Efficiency of >1 X 10<sup>10</sup>

### Phage T1-Resistant TransforMax™ EC100™-T1<sup>R</sup> Electrocompetent *E. coli*

EPICENTRE's new Phage T1-Resistant TransforMax™ EC100™-T1<sup>R</sup> Electrocompetent *E. coli* provide complete security against loss of valuable clones and libraries by accidental phage T1 contamination of the lab. And, with a transformation efficiency of >1 X 10<sup>10</sup> the cells are ideal for the most demanding cloning applications including:

- Genomic library construction
- cDNA library construction
- Cloning rare or limiting DNA
- Shotgun library construction

Once introduced into the lab environment, bacteriophage T1 rapidly lyses *E. coli* strains that are commonly used in cloning applications. The result can be significant lab downtime and the loss of valuable clones and entire libraries. Bacteriophage T1 is particularly difficult to eliminate from the lab and can lay dormant for many years. The *tonA* genotype protects the Phage T1-Resistant TransforMax EC100-T1<sup>R</sup> cells, and your clones, from attack by phage T1 (and phage T5).

Phage T1-Resistant TransforMax EC100-T1<sup>R</sup> Chemically Competent *E. coli* are also available.

#### Important Benefits (compare to DH10B\*)

- Greater than 10<sup>10</sup> cfu/μg DNA.
- Resistant to bacteriophages T1 and T5 (*tonA*).
- Readily accepts large DNAs for construction of large-insert genomic libraries.
- Restriction minus (*mcrA*, Δ(*mrr-hsdRMS-mcrBC*)) enables efficient cloning of methylated DNA for more complete genomic libraries.
- Endonuclease minus (*endA1*) to ensure high yields of DNA.
- Restriction minus (*recA1*) for greater stability of large cloned inserts.
- *lacZ*ΔM15 for blue/white screening of recombinants.

#### Genotype

F<sup>-</sup> *mcrA* Δ(*mrr-hsdRMS-mcrBC*)  
 φ80*dlacZ*ΔM15 Δ*lacX74* *recA1* *endA1*  
*araD139* Δ(*ara, leu*)7697 *galU* *galk* λ<sup>-</sup>  
*rpsL* *nupG* *tonA*

[www.epicentre.com/ec100t1r.asp](http://www.epicentre.com/ec100t1r.asp)

#### Phage T1-Resistant TransforMax™ EC100™-T1<sup>R</sup> Electrocompetent *E. coli*

ECO205T1 5 X 100 μl

ECO210T1 10 X 100 μl

Transformation efficiency >1 X 10<sup>10</sup> cfu/μg.  
 Includes pUC19 control DNA.

#### Phage T1-Resistant TransforMax™ EC100™-T1<sup>R</sup> Chemically Competent *E. coli*

CCT10210 10 X 50 μl

Transformation efficiency >5 X 10<sup>7</sup> cfu/μg.  
 Includes pUC19 control DNA.

\* DH10B is a trademark of Invitrogen Corporation.