

EZ::TN™ Transposon Tools

Generate RNA Transcripts From Any Region of Your Plasmid or Cosmid Clone

EZ::TN™ <T7/KAN-2> Promoter Insertion Kit

The EZ::TN™ <T7/KAN-2> Promoter Insertion Kit randomly inserts a single EZ::TN Transposon containing the phage T7 promoter and a kanamycin resistance marker into your cloned DNA to facilitate transcription of RNA from any region of the clone.

- Randomly insert a phage T7 transcription promoter into plasmid or cosmid clones.

The EZ::TN T7 Promoter Insertion Kit is based on a highly random Tn5 transposition system. This ensures that the T7 promoter is inserted in a different location in each clone.

- Generate a population of >10⁵ T7 promoter insertion clones.

A single 2-hour *in vitro* enzymatic reaction produces >10⁵ clones—each with a single, randomly inserted T7 promoter.

- Transcribe high yields of RNA *in vitro* or *in vivo*.

High yields of RNA can be generated *in vitro* using the AmpliScribe™ T7 High Yield Transcription Kit, or *in vivo* after transformation of *E. coli* harboring an inducible T7 RNA polymerase gene (e.g., BL21(DE3)pLysS).

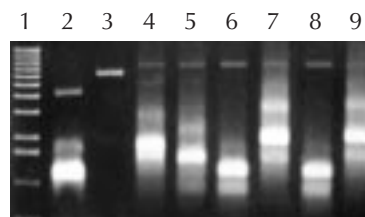


Figure 1. Agarose gel analysis of RNA produced from 6 randomly chosen T7 Promoter insertion clones that were linearized and transcribed using AmpliScribe™ T7 High Yield Transcription Kit. Lane 1, DNA size marker; Lane 2, 1.4 kb positive control DNA from the AmpliScribe™ Kit; Lane 3, negative control pUC19 DNA without T7 promoter; lanes 4-9, T7 promoter insertion clones.

EZ::TN™ <T7/KAN-2> Promoter Insertion Kit

EZI03T7-F73 10 Reactions

Kit contains EZ::TN <T7/KAN-2> Transposon, EZ::TN Transposase, Reaction Buffer, Stop Buffer, two unlabeled Sequencing Primers, Control DNA and Water.

Generate Random In-Frame 19-Codon Insertions into Genomic or cDNA Clones

EZ::TN™ In-Frame Linker Insertion Kit

The EZ::TN™ In-Frame Linker Insertion Kit is a transposon-based linker insertion system that facilitates rapid and easy production of random 19-codon (57-nucleotide) linker insertions into cloned DNA *in vitro*. Use the Kit to identify permissive and non-permissive insertion sites in proteins, to map domains and epitopes or to disrupt genetic control regions.

- Make random 19-codon insertions into all three reading frames of your cloned DNA.

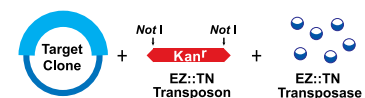
The EZ::TN <Not I/Kan-3> Transposon was designed to preserve all three reading frames in the final linker insertion construct. The result is that your protein is unchanged except for the random insertion of 19 amino acids.

- Generate a complete population of in-frame insertion clones.

The EZ::TN™ In-Frame Linker Insertion Kit is based on the highly random Tn5 transposition system. A single *in vitro* reaction generates >10⁴ insertion clones—each containing a different, single, random transposon insertion.

- More versatile than linker scanning mutagenesis.

Because the insertion reaction is random, the 19-codon insertions are not limited to pre-existing restriction endonuclease sites in the cloned DNA as is the case with traditional linker scanning mutagenesis.



1. Incubate 37°C; 2 hrs.
2. Transform *E. coli*.
3. Select Kan^r clones.
4. Map or sequence insertion sites (optional).
5. Digest with Not I. Religate to generate 19-codon insertion. Transform *E. coli*.
6. Express the protein. Assay for mutants, altered activity, etc.

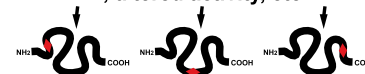


Figure 1. Process for making random, in-frame 19-codon insertions.

EZ::TN™ In-Frame Linker Insertion Kit

EZI04KN-F72 10 Reactions

Kit includes EZ::TN <Not I/KAN-3> Transposon, EZ::TN Transposase, Reaction Buffer, Stop Buffer, two unlabeled Sequencing Primers, Control DNA and Water.