

Certificate of Analysis

TOPO™ TA Cloning™ Kit for Subcloning, without competent cells

Product No. 451641, 15507540

Lot No. 2975189

Date of Manufacture 13-Aug-2024

Restriction Enzyme Analysis

The parental supercoiled vector, pCR®2.1 is qualified by restriction digest to confirm its identity prior to linearization and adaptation with topoisomerase I. Restriction digests must demonstrate the correct banding pattern when electrophoresed on an agarose gel. The table below lists the restriction enzymes and the expected fragments.

<u>Restriction Enzyme</u>	<u>Expected Fragments</u>
<i>Hind</i> III	3890 bp (linearize)
<i>Xba</i> I	3890 bp (linearize)
<i>Nsi</i> I	3890 bp (linearize)
<i>Pst</i> I	2723 bp, 1167 bp

Results: Meets Specification

TOPO® Cloning of Test PCR Product

Each lot is qualified using control reagents included in the kit. Under conditions described in the on-line manual, a 750 bp control PCR product is amplified and TOPO® Cloned into pCR®2.1-TOPO® vector and subsequently transformed into the One Shot® competent *E. coli*. The following results must be obtained:

- 1) pCR®2.1-TOPO® and PCR product ligation: \geq 92% white transformants.
- 2) \geq 90% of the white transformants from 1) contain pCR®2.1-TOPO® with a cloned test PCR product.

Results: Meets Specification

Sequencing Primers

Sequencing primers are lot-qualified by DNA sequencing experiments using the dideoxy chain termination technique. Each primer must yield ≥ 250 bp of quality sequence from a supercoiled plasmid template using standard sequencing conditions.

Results: Meets Specification

For Research Use Only. Not for use in diagnostic procedures.

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Issued on 14-Aug-2024