

# Certificate of Analysis

## TOPO™ TA Cloning™ Kit, Dual Promoter, without competent cells

Product No. 452640, 15751927

Lot No. 3020822

Date of Manufacture 20-Sep-2024

### Restriction Enzyme Analysis

The parental supercoiled vector, pCR®II 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.

Restriction Enzyme	Expected Fragments
<i>Hind</i> III	3932 bp (linearize)
<i>Xba</i> I	3932 bp (linearize)
<i>Nsi</i> I	3836 bp, 96 bp
<i>Pst</i> I	2765 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®II-TOPO® vector and subsequently transformed into the One Shot® competent *E. coli*. The following results must be obtained:

- 1) pCR®II-TOPO® and control PCR product ligation:  $\geq 92\%$  white transformants
- 2)  $\geq 90\%$  of the white transformants from 1) contain pCR®II-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  $\geq 250$  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.

Thermo Fisher Scientific  
Life Sciences Solutions  
5781 Van Allen Way  
Carlsbad, CA, USA 92008  
<https://www.thermofisher.com>  
For inquiries, contact us at [cofarequests@thermofisher.com](mailto:cofarequests@thermofisher.com)



Chevohn Joseph  
Director, Quality  
Issued on 23-Sep-2024