ThermoFisher SCIENTIFIC

Certificate of Analysis

Zero Blunt™ TOPO™ PCR Cloning Kit, without competent cells

Product No. 450245, 11596885

Lot No. 2958790

Date of Manufacture 20-Jun-2024

Restriction Enzyme Analysis

The parental supercoiled plasmid is qualified by restriction digest to confirm its identity prior to adaptation with topisomerase 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 (bp)
Mlu I	2000 (sc)
Dra I	3513 (linearize)
EcoR V	3513 (linearize)
Pme I	3120, 393
Pvu II	2047, 593, 457, 360

Results: Meets specification

TOPO Cloning

Each lot is qualified using control reagents included in the kit. Under conditions described in the accompanying manual, a 750-800 bp control PCR product is amplified and TOPO®-Cloned into pCR®-Blunt II TOPO® vector and subsequently transformed into One Shot® competent *E.coli* included with the kit. The following result must be obtained:

≥ 95% cloning efficiency when vector + PCR product insert colonies are analyzed by *EcoR* I digestion and agarose gel electrophoresis.

Results: Meets specification

M13 (-20) Forward and M13 Reverse Primers

The M13 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.

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

Chevohn Joseph
Director, Quality
Issued on 21-Jun-2024