NEW ENGLAND BioLabs Inc.

be INSPIRED
drive DISCOVERY
stay GENUINE

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Ipswich, MA 01938-2723

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# New England Biolabs
# Certificate of Analysis

| | |
|---|---|
| Product Name: | Taq(alpha)I |
| Catalog Number: | R0149L |
| Concentration: | 20,000 U/ml |
| Unit Definition: | One unit is defined as the amount of enzyme required to digest 1 ·g of Lambda DNA in 1 hour at 65°C in a total reaction volume of 50 ·l. |
| Lot Number: | 10022851 |
| Expiration Date: | 09/2020 |
| Storage Temperature: | -20°C |
| Storage Conditions: | 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA |
| Specification Version: | PS-R0149S/L v1.0 |

| Taq(alpha)I Component List | | | |
|---|---|---|---|
| **NEB Part Number** | **Component Description** | **Lot Number** | **Individual QC Result** |
| R0149LVIAL | Taq(alpha)I | 10021416 | **Pass** |
| B7204SVIAL | CutSmart® Buffer | 10018443 | **Pass** |

| Assay Name/Specification | Lot # 10022851 |
|---|---|
| **Exonuclease Activity (Radioactivity Release)** A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ ³H] E. coli DNA and a minimum of 200 units of TaqαI incubated for 4 hours at 65ºC releases <0.1% of the total radioactivity. | **Pass** |
| **Ligation and Recutting (Terminal Integrity)** After a 20-fold over-digestion of Lambda DNA DNA with TaqαI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 25ºC. Of these ligated fragments, >95% can be recut with TaqαI. | **Pass** |
| **Non-Specific DNase Activity (16 Hour)** A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA DNA and a minimum of 200 Units of TaqαI incubated for 16 hours at 65ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | **Pass** |

This product has been tested and shown to be in compliance with all specifications.

nqa. ISO 9001 Registered Quality Management
nqa. ISO 13485 Registered Medical Devices
nqa. ISO 14001 Registered Environmental Management

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Tony Spear-Alfonso
Production Scientist
12 Sep 2018

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Packaging Quality Control Inspector
23 Oct 2018

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