240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: Q5® Site-Directed Mutagenesis Kit

Catalog Number: E0554S
Lot Number: 10048907
Expiration Date: 07/2020

Storage Temperature: Multi-temperature*
Specification Version: PS-E0554S v2.0

* This product contains components with different storage temperature requirements. Please reference the applicable product specification document(s) on the Quality and Safety tab located on the product page of www.neb.com.

| Q5® Site-Directed Mutagenesis Kit Component List | | | |
|--|--|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| S0554AVIAL | Control SDM Primer Mix | 10030338 | Pass |
| N3041AVIAL | pUC19 Vector | 10043515 | Pass |
| N0554AVIAL | Control SDM Plasmid | 10030337 | Pass |
| M0554AVIAL | KLD Enzyme Mix | 10030334 | Pass |
| M0494AVIAL | Q5® Hot Start High-Fidelity 2X Master Mix | 10030336 | Pass |
| C2987HVIAL | NEB® 5-alpha Competent E. coli (High Efficiency) | 10045089 | Pass |
| B9020SVIAL | SOC Outgrowth Medium | 10045017 | Pass |
| B0554AVIAL | KLD Reaction Buffer | 10030335 | Pass |

| Assay Name/Specification | Lot # 10048907 |
|---|----------------|
| Functional Testing (Mutagenesis Kit) A 10 µl reaction containing 1 µl of PCR product (10 ng of Control SDM plasmid, amplified with Control SDM Primer Mix, with 25 cycles in Q5 Hot Start High-Fidelity Master Mix), 1 µl 10X KLD Enzyme Mix, 5 µl 2X KLD Reaction Buffer and 3 µl of nuclease-free water for 5 minutes at room temperature yields >50 colonies with >75% blue after transforming 5 µl into 50 µl NEB 5-alpha Chemically Competent Cells and making a 40-fold dilution prior to plating. | Pass |
| * Individual Product Component Note Standard Quality Control Tests are performed for each component included in Q5 Site-Directed Mutagenesis Kit and meet the designated specifications. | Pass |

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



E0554S / Lot: 10048907 Page 1 of 2 Lixin An

Production Scientist

NEW ENGLAND

29 May 2019

Corey Rabeau

Packaging Quality Control Inspector

12 Jul 2019