

## New England Biolabs Certificate of Analysis

Product Name: Q5® Site-Directed Mutagenesis Kit  
 Catalog Number: E0554S  
 Lot Number: 10041471  
 Expiration Date: 03/2020  
 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                                     | 10035844   | 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) | 10033562   | Pass                 |
| B9020SVIAL                                       | SOC Outgrowth Medium                             | 10032897   | Pass                 |
| B0554AVIAL                                       | KLD Reaction Buffer                              | 10030335   | Pass                 |

| Assay Name/Specification  | Lot # 10041471 |
|---|----------------|
| <p><b>Functional Testing (Mutagenesis Kit)</b><br/>           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 &gt;50 colonies with &gt;75% blue after transforming 5 µl into 50 µl NEB 5-alpha Chemically Competent Cells and making a 40-fold dilution prior to plating.</p> | Pass           |
| <p><b>* Individual Product Component Note</b><br/>           Standard Quality Control Tests are performed for each component included in Q5 Site-Directed Mutagenesis Kit and meet the designated specifications.</p>   | Pass           |

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



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Nick Privitera  
Packaging Quality Control Inspector  
01 Apr 2019

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Chris Blanchette  
Production Scientist  
22 Feb 2019