

## New England Biolabs Certificate of Analysis

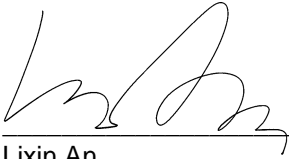
Product Name: Q5® Site-Directed Mutagenesis Kit  
 Catalog Number: E0554S  
 Lot Number: 10056481  
 Expiration Date: 08/2020  
 Storage Temperature: Multi-temperature\*  
 Specification Version: PS-E0554S v2.0

\* 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](http://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	10053503	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)	10051507	Pass
B9020SVIAL	SOC Outgrowth Medium	10048120	Pass
B0554AVIAL	KLD Reaction Buffer	10030335	Pass

Assay Name/Specification	Lot # 10056481
<b>Functional Testing (Mutagenesis Kit)</b> 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
<b>* Individual Product Component Note</b> 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.



Lixin An  
Production Scientist  
06 Aug 2019



Nick Privitera  
Packaging Quality Control Inspector  
26 Sep 2019