

## New England Biolabs Certificate of Analysis

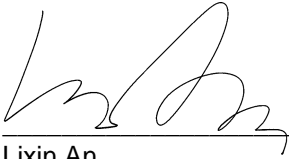
Product Name: Q5® Site-Directed Mutagenesis Kit  
 Catalog Number: E0554S  
 Lot Number: 10033107  
 Expiration Date: 12/2019  
 Storage Temperature: Multi-temperature\*  
 Specification Version: PS-E0554S v2.0

\* 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	10010198	Pass
N3041AVIAL	pUC19 Vector	10032414	Pass
N0554AVIAL	Control SDM Plasmid	10010197	Pass
M0554AVIAL	KLD Enzyme Mix	10010196	Pass
M0494AVIAL	Q5® Hot Start High-Fidelity 2X Master Mix	10010195	Pass
C2987HVIAL	NEB® 5-alpha Competent E. coli (High Efficiency)	10027363	Pass
B9020SVIAL	SOC Outgrowth Medium	10018471	Pass
B0554AVIAL	KLD Reaction Buffer	10016326	Pass

Assay Name/Specification	Lot # 10033107
<p><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 &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>            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.



Lixin An  
Production Scientist  
21 Nov 2018



Nick Privitera  
Packaging Quality Control Inspector  
08 Jan 2019