

## New England Biolabs Certificate of Analysis

**Product Name:** Q5® Site-Directed Mutagenesis Kit  
**Catalog Number:** E0554S  
**Packaging Lot Number:** 10244061  
**Expiration Date:** 05/2025  
**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	10221182	Pass
N3041AVIAL	pUC19 Vector	10236883	Pass
N0554AVIAL	Control SDM Plasmid	10221181	Pass
M0554AVIAL	KLD Enzyme Mix	10221179	Pass
M0494AVIAL	Q5® Hot Start High-Fidelity 2X Master Mix	10221178	Pass
C2987HVIAL	NEB® 5-alpha Competent E. coli (High Efficiency)	10214247	Pass
B9020SVIAL	SOC Outgrowth Medium	10222587	Pass
B0554AVIAL	KLD Reaction Buffer	10219318	Pass

Assay Name/Specification	Lot # 10244061
<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>	<b>Pass</b>
<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>	<b>Pass</b>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



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01 Mar 2024



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27 Jun 2024