

## New England Biolabs Certificate of Analysis

**Product Name:** Q5<sup>®</sup> Site-Directed Mutagenesis Kit (Without Competent Cells)  
**Catalog Number:** E0552S  
**Packaging Lot Number:** 10071258  
**Expiration Date:** 09/2021  
**Storage Temperature:** -20°C  
**Specification Version:** PS-E0552S v1.0

Q5 <sup>®</sup> Site-Directed Mutagenesis Kit (Without Competent Cells) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S0554AVIAL	Control SDM Primer Mix	10052076	Pass
N0554AVIAL	Control SDM Plasmid	10052075	Pass
M0554AVIAL	KLD Enzyme Mix	10052071	Pass
M0494AVIAL	Q5 <sup>®</sup> Hot Start High-Fidelity 2X Master Mix	10055243	Pass
B0554AVIAL	KLD Reaction Buffer	10052074	Pass

Assay Name/Specification	Lot # 10071258
<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.	<b>Pass</b>
<b>* Individual Product Component Note</b> Standard Quality Control Tests are performed for each component included in Q5 Site-Directed Mutagenesis Kit (Without Competent Cells) and meet the designated specifications.	<b>Pass</b>

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

*Cathy Shea*

Cathy Shea  
Production Scientist  
03 Oct 2019

*Josh Hersey*

Josh Hersey  
Packaging Quality Control Inspector  
01 Apr 2020