

New England Biolabs Product Specification

Product Name: Q5[®] Site-Directed Mutagenesis Kit
Catalog #: E0554S
Kit Components: Q5[®] Hot Start High-Fidelity 2X Master Mix (M0494)
KLD Enzyme Mix (M0554)
KLD Reaction Buffer (B0554)
Control SDM Primer Mix (S0554)
Control SDM Plasmid (N0554)
NEB[®] 5-alpha Competent *E. coli* (High Efficiency) (C2987)
pUC19 Vector (N3041)
SOC Outgrowth Medium (B9020)

Shelf Life: 12 months
Storage Temp: -80°C
Specification Version: PS-E0554S v1.0
Effective Date: 13 Feb 2018

Assay Name/Specification (minimum release criteria)

Functional Testing (Mutagenesis Kit) - 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.

* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in Q5 Site-Directed Mutagenesis Kit and meet the designated specifications.



Date 13 Feb 2018

Derek Robinson
Director of Quality Control

