

New England Biolabs Certificate of Analysis

Product Name: *Tte-UvrD Helicase*
Catalog Number: *M1202S*
Concentration: *20 µg/ml*
Lot Number: *10043679*
Expiration Date: *01/2021*
Storage Temperature: *-20°C*
Storage Conditions: *10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.1 % Triton®X-100 , 50 % Glycerol, (pH 7.4 @ 25°C)*
Specification Version: *PS-M1202S v1.0*

Tte-UvrD Helicase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
P0756SVIAL	Adenosine 5'-Triphosphate (ATP)	10034352	Pass
M1202SVIAL	Tte-UvrD Helicase	10043680	Pass
B0537SVIAL	Isothermal Amplification Buffer	10035085	Pass

Assay Name/Specification	Lot # 10043679
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 2 µg of Tte-UvrD Helicase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 2 µg of Tte-UvrD Helicase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Functional Testing (ATP-dependent LAMP Inhibition) Tte-UvrD Helicase is tested for ATP-dependent inhibition of a LAMP reaction and suppression of amplification in a no template control reaction.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 2 µg of Tte-UvrD Helicase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

Assay Name/Specification	Lot # 10043679
<p>Protein Purity Assay (SDS-PAGE) Tte-UvrD Helicase is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>RNase Activity (Extended Digestion) A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μl of Tte-UvrD Helicase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

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



Alicia Bielik
Production Scientist
25 Jan 2019



Michael Tonello
Packaging Quality Control Inspector
07 May 2019