

## New England Biolabs Certificate of Analysis

**Product Name:** *Tte-UvrD Helicase*  
**Catalog Number:** *M1202S*  
**Concentration:** *20 µg/ml*  
**Packaging Lot Number:** *10062300*  
**Expiration Date:** *07/2021*  
**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)	10058045	Pass
M1202SVIAL	Tte-UvrD Helicase	10062301	Pass
B0537SVIAL	Isothermal Amplification Buffer	10035085	Pass

Assay Name/Specification	Lot # 10062300
<b>RNase Activity (Extended Digestion)</b> 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.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> Tte-UvrD Helicase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> 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
<b>Functional Testing (ATP-dependent LAMP Inhibition)</b> Tte-UvrD Helicase is tested for ATP-dependent inhibition of a LAMP reaction and suppression of amplification in a no template control reaction.	Pass

Assay Name/Specification	Lot # 10062300
<p><b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 2 µg of Tte-UvrD Helicase incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	<b>Pass</b>
<p><b>Endonuclease Activity (Nicking)</b> 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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<b>Pass</b>

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



Jenna Ware  
Production Scientist  
15 Jan 2020



Jay Minichiello  
Packaging Quality Control Inspector  
04 Feb 2020