

New England Biolabs Certificate of Analysis

Product Name: *EnGen Lba Cas12a (Cpf1)*
Catalog Number: *M0653T*
Concentration: *100 µM*
Packaging Lot Number: *10079118*
Expiration Date: *07/2022*
Storage Temperature: *-20°C*
Storage Conditions: *500 mM NaCl, 20 mM Sodium Acetate, 0.1 mM EDTA, 0.1 mM TCEP-HCl, 50% Glycerol, (pH 6.0 @ 25°C)*
Specification Version: *PS-M0653T v2.0*

EnGen Lba Cas12a (Cpf1) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0653TVIAL	EnGen® Lba Cas12a (Cpf1)	10079119	Pass
B7202SVIAL	NEBuffer™ 2.1	10070034	Pass

Assay Name/Specification	Lot # 10079118
<p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of supercoiled PhiX174 RF I DNA and a minimum of 1 pmol of EnGen® Lba Cas12a (Cpf1) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 1 pmol of EnGen® Lba Cas12a (Cpf1) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Functional Testing (Targeted Digestion) A 20 µl reaction in 1X NEBuffer 2.1 containing 20 nM of 100 bp FAM and ROX-labeled double-stranded target DNA, 100 nM crRNA, and 100 nM EnGen® Lba Cas12a (Cpf1) incubated for 15 minutes at 37°C results in ≥90% targeted digestion of the substrate DNA as determined by capillary electrophoresis.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2.1 containing 1 µg of Lambda DNA and a minimum of 1 pmol of EnGen® Lba Cas12a (Cpf1) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel</p>	Pass

Assay Name/Specification	Lot # 10079118
<p>electrophoresis.</p> <p>RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of f-300 RNA transcript and a minimum of 1 pmol of EnGen® Lba Cas12a (Cpf1) 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>	<p>Pass</p>

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

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Bhairavi Jani
Production Scientist
24 Jul 2020



Michael Tonello
Packaging Quality Control Inspector
24 Jul 2020