

## New England Biolabs Certificate of Analysis

**Product Name:** Nt.CviPII  
**Catalog Number:** R0626S  
**Concentration:** 2,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in CutSmart™ Buffer incubated for 1 hour at 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10259103  
**Expiration Date:** 08/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 100 mM NaCl, 20 mM Tris-HCl (pH 8.0), 50% Glycerol  
**Specification Version:** PS-R0626S/L v2.0

Nt.CviPII Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0626SVIAL	Nt.CviPII	10252966	Pass
B6004SVIAL	rCutSmart™ Buffer	10249065	Pass

Assay Name/Specification	Lot # 10259103
<b>DNase Activity (Labeled Oligo, 3' extension)</b> A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent labeled double-stranded oligonucleotide containing a 3' extension and a minimum of 10 units of Nt.CviPII incubated for 16 hours at 37°C yields <5% degradation as determined by capillary electrophoresis.	<b>Pass</b>
<b>DNase Activity (Labeled Oligo, 5' extension)</b> A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent labeled double-stranded oligonucleotide containing a 5' extension and a minimum of 10 units of Nt.CviPII incubated for 16 hours at 37°C yields <5% degradation as determined by capillary electrophoresis.	<b>Pass</b>
<b>Double Stranded DNase Activity (Labeled Oligo)</b> A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent labeled double-stranded oligonucleotide containing a blunt end and a minimum of 10 units of Nt.CviPII incubated for 16 hours at 37°C yields <5% degradation as determined by capillary electrophoresis.	<b>Pass</b>
<b>Single Stranded DNase Activity (FAM-Labeled Oligo)</b>	<b>Pass</b>

Assay Name/Specification	Lot # 10259103
<p>A 50 µl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent internal labeled oligonucleotide and a minimum of 10 units of Nt.CviPII incubated for 16 hours at 37°C yields &lt;5% degradation as determined by capillary electrophoresis.</p> <p><b>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 2 units of Nt.CviPII is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p>	<p><b>Pass</b></p>

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

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Packaging Quality Control Inspector  
12 Sep 2024