

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>Nt.CviPII</i>
<i>Catalog #:</i>	<i>R0626S/L</i>
<i>Concentration:</i>	<i>2,000 units/ml</i>
<i>Unit Definition:</i>	<i>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.</i>
<i>Shelf Life:</i>	<i>12 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>100 mM NaCl, 20 mM Tris-HCl (pH 8.0), 50% Glycerol</i>
<i>Specification Version:</i>	<i>PS-R0626S/L v2.0</i>
<i>Effective Date:</i>	<i>19 Jan 2018</i>

### Assay Name/Specification (minimum release criteria)

**DNase Activity (Labeled Oligo, 3' extension)** - 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.

**DNase Activity (Labeled Oligo, 5' extension)** - 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.

**Double Stranded DNase Activity (Labeled Oligo)** - 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.

**qPCR DNA Contamination (*E. coli* Genomic)** - 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.

**Single Stranded DNase Activity (FAM-Labeled Oligo)** - 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 <5% degradation as determined by capillary electrophoresis.



Date 19 Jan 2018

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Director of Quality Control

