

## New England Biolabs Certificate of Analysis

**Product Name:** *Thermolabile Proteinase K*  
**Catalog Number:** *P8111S*  
**Concentration:** *120 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to release 1.0 μmol of 4-nitroaniline per minute from N-Succinyl-Ala-Ala-Pro-Phe-p-nitroanilide at 25°C in a total reaction volume of 105 μl.*  
**Packaging Lot Number:** *10197130*  
**Expiration Date:** *07/2025*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *20 mM Tris-HCl, 1 mM CaCl<sub>2</sub>, 50 % Glycerol, (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-P8111S v1.0*

### Thermolabile Proteinase K Component List

NEB Part Number	Component Description	Lot Number	Individual QC Result
P8111SVIAL	Thermolabile Proteinase K	10197129	Pass

Assay Name/Specification	Lot # 10197130
<p><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 Thermolabile Proteinase K is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>Single Stranded DNase Activity (FAM-Labeled Oligo)</b>            A 50 μl reaction in CutSmart® Buffer containing a 20 nM solution of a fluorescent internal labeled oligonucleotide and a minimum of 0.6 units of Thermolabile Proteinase K incubated for 16 hours at 37°C yields &lt;5% degradation as determined by capillary electrophoresis.</p>	Pass
<p><b>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 0.12 units of Thermolabile Proteinase K 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>	Pass

Assay Name/Specification	Lot # 10197130
<p><b>qPCR DNA Contamination (Eukaryotic Genomic)</b> A minimum of 0.12 units of Thermolabile Proteinase K is screened for the presence of eukaryotic genomic DNA using SYBR® Green qPCR with universal primers for the 18S rRNA locus. Results are quantified using a standard curve generated from purified E. album genomic DNA. The measured level of eukaryotic genomic DNA contamination is ≤ 2.5 pg DNA/μl.</p>	<p><b>Pass</b></p>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.

*Beth M. Paschal*

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11 Jul 2023



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14 Jul 2023