

## 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  $\mu$ mol of 4-nitroaniline per minute from N-Succinyl-Ala-Ala-Pro-Phe-p-nitroanilide at 25°C in a total reaction volume of 105  $\mu$ l.*  
**Packaging Lot Number:** *10126953*  
**Expiration Date:** *11/2023*  
**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	10126952	Pass

Assay Name/Specification	Lot # 10126953
<p><b>RNase Activity (Extended Digestion)</b>            A 10 <math>\mu</math>l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 <math>\mu</math>l 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>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 <math>\leq</math> 2.5 pg DNA/<math>\mu</math>l.</p>	Pass
<p><b>Single Stranded DNase Activity (FAM-Labeled Oligo)</b>            A 50 <math>\mu</math>l 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


Assay Name/Specification	Lot # 10126953
<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 <math>\leq 1</math> 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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12 Nov 2021



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