

## New England Biolabs Certificate of Analysis

**Product Name:** *Thermolabile Proteinase K*  
**Catalog Number:** *P8111S*  
**Unit Definition:** *One unit is defined as the amount of enzyme required to release 1.0  $\mu\text{mol}$  of 4-nitroaniline per minute from N-Succinyl-Ala-Ala-Pro-Phe-p-nitroanilide at 25°C in a total reaction volume of 105  $\mu\text{l}$ .*  
**Packaging Lot Number:** *10085286*  
**Expiration Date:** *01/2023*  
**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	10085287	Pass

Assay Name/Specification	Lot # 10085286
<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\text{l}</math>.</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 <math>\leq</math> 1 E. coli genome.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 <math>\mu\text{l}</math> reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 <math>\mu\text{l}</math> 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></p>	Pass

Assay Name/Specification	Lot # 10085286
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 <5% degradation as determined by capillary electrophoresis.	

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

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19 Jan 2021



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