

## New England Biolabs Certificate of Analysis

**Product Name:** T4 Phage beta-glucosyltransferase  
**Catalog Number:** M0357S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to protect 0.5 µg T4gt-DNA against cleavage by MfeI restriction endonuclease.  
**Lot Number:** 10046686  
**Expiration Date:** 06/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 200 mM NaCl, 20 mM KPO<sub>4</sub>, 0.25 mM DTT, 0.1 mM EDTA, 50% Glycerol, (pH 7.0 @ 25°C)  
**Specification Version:** PS-M0357S/L v1.0

T4 Phage beta-glucosyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
S2200SVIAL	Uridine Diphosphate Glucose, 2 mM	10046690	Pass
M0357SVIAL	T4 Phage β-glucosyltransferase (T4-BGT)	10046687	Pass
B7004SVIAL	NEBuffer™ 4	10026208	Pass

Assay Name/Specification	Lot # 10046686
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of T4 Phage β-glucosyltransferase (T4-BGT) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 100 units of T4 Phage β-glucosyltransferase (T4-BGT) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda DNA and a minimum of 100 units of T4 Phage β-glucosyltransferase (T4-BGT) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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





Tony Spear-Alfonso  
Production Scientist  
23 Oct 2018



Michael Tonello  
Packaging Quality Control Inspector  
18 Jun 2019