

## New England Biolabs Certificate of Analysis

**Product Name:** Bmtl  
**Catalog Number:** R0658S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pXba in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10013104  
**Expiration Date:** 06/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA  
**Specification Version:** PS-R0658S/L v1.0

Bmtl Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0658SVIAL	Bmtl	10013105	Pass
B7203SVIAL	NEBuffer™ 3.1	10010189	Pass
B7203SVIAL	NEBuffer™ 3.1	0541804	Pass

Assay Name/Specification	Lot # 10013104
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of Bmtl incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of pXba DNA with Bmtl, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with Bmtl.	Pass
<b>Non-Specific DNase Activity (16 hour)</b> A 50 µl reaction in NEBuffer 3.1 containing 1 µg of pXba DNA and a minimum of 10 units of Bmtl incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.	Pass

Assay Name/Specification	Lot # 10013104
<b>Protein Purity Assay (SDS-PAGE)</b> Bmtl is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	<b>Pass</b>

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



Tony Spear-Alfonso  
Production Scientist  
06 Jun 2018



Michael Tonello  
Packaging Quality Control Inspector  
28 Jun 2018