

## New England Biolabs Certificate of Analysis

**Product Name:** BtsIMutI  
**Catalog Number:** R0664S  
**Concentration:** 1,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in 1 hour at 55°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10066769  
**Expiration Date:** 02/2022  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0664S v1.0

BtsIMutI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0664SVIAL	BtsIMutI	10066770	Pass
B7204SVIAL	CutSmart® Buffer	10068802	Pass

Assay Name/Specification	Lot # 10066769
<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 5 units of BtsIMutI incubated for 4 hours at 55°C releases <0.5% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 5-fold over-digestion of pUC19 DNA with BtsIMutI, ~50% 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 BtsIMutI.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pUC19 DNA and a minimum of 5 units of BtsIMutI incubated for 16 hours at 55°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.



Penghua Zhang  
Production Scientist  
13 Feb 2020



Josh Hersey  
Packaging Quality Control Inspector  
16 Mar 2020