

## 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:** *10273763*  
**Expiration Date:** *01/2027*  
**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	10257100	Pass
B6004SVIAL	rCutSmart™ Buffer	10265039	Pass

Assay Name/Specification	Lot # 10273763
<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.

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03 Jan 2025



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06 Jan 2025