

## New England Biolabs Certificate of Analysis

**Product Name:** *FatI*  
**Catalog Number:** *R0650S*  
**Concentration:** *2,000 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.*  
**Lot Number:** *10008628*  
**Expiration Date:** *03/2020*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA*  
**Specification Version:** *PS-R0650S/L v1.0*

FatI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0650SVIAL	FatI	0131803	Pass
B7202SVIAL	NEBuffer™ 2.1	0251706	Pass

Assay Name/Specification	Lot # 10008628
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 10 units of FatI incubated for 4 hours at 55°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 10-fold over-digestion of pUC19 DNA with FatI, &gt;95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with FatI.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in NEBuffer 2.1 containing 1 µg of pUC19 DNA and a minimum of 10 Units of FatI incubated for 16 hours at 55°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass

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



Penghua Zhang  
Production Scientist  
23 Jul 2018



Michael Tonello  
Packaging Quality Control Inspector  
23 Jul 2018