### New England Biolabs
## Product Specification

**Product Name:** FokI  
**Catalog #:** R0109S/L  
**Concentration:** 5,000 units/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Shelf Life:** 24 months  
**Storage Temp:** -20°C  
**Storage Conditions:** 50 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.1% Tween-20, 200 µg/ml BSA, (pH 7.4 at 25°C)  
**Specification Version:** PS-R0109S/L v2.0  
**Effective Date:** 13 May 2019

### Assay Name/Specification (minimum release criteria)

<table>
<thead>
<tr>
<th>Assay Name/Specification</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Exonuclease Activity (Radioactivity Release)</td>
<td>A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 5 units of FokI incubated for 4 hours at 37°C releases &lt;0.5% of the total radioactivity.</td>
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<tr>
<td>Ligation and Recutting (Terminal Integrity)</td>
<td>After a 10-fold over-digestion of Lambda DNA with FokI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with FokI.</td>
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* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (H R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/ Serum for Manufacture into Pharmaceutical Products.

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**Derek Robinson**  
Director of Quality Control  

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**Date** 13 May 2019

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