# New England Biolabs  
**Product Specification**

**Product Name:** FspI  
**Catalog #:** R0135S/L  
**Concentration:** 10,000 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:** 300mM NaCl, 10mM Tris-HCl (pH 7.5), 0.1mM EDTA, 1mM dithiothreitol, 0.15% Triton X-100, 300 µg/ml BSA, 50% glycerol  
**Specification Version:** PS-R0135S/L v1.0  
**Effective Date:** 08 Jul 2013

<table>
<thead>
<tr>
<th>Assay Name/Specification (minimum release criteria)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exonuclease Activity (Radioactivity Release)</strong> - 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 100 units of FspI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</td>
<td></td>
</tr>
<tr>
<td><strong>Ligation and Recutting (Terminal Integrity)</strong> - After a 10-fold over-digestion of Lambda DNA with FspI, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 4 hours at 25°C. Of these ligated fragments, &gt;95% can be recut with FspI.</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Specific DNase Activity (16 Hour)</strong> - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 100 Units of FspI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</td>
<td></td>
</tr>
</tbody>
</table>

* The BSA in this product has been granted an EDQM “Certificate of Suitability” from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.

**Derek Robinson**  
Director of Quality Control  

**Date** 08 Jul 2013