Product Name: ApaI  
Catalog Number: R0114S  
Concentration: 50,000 U/ml  
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 25°C in a total reaction volume of 50 µl.

Packaging Lot Number: 10062635  
Expiration Date: 01/2022  
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, 500 µg/ml BSA

Specification Version: PS-R0114S/L v1.0

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
</tr>
</thead>
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<tr>
<td>R0114SVIAL</td>
<td>ApaI</td>
<td>10062636</td>
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</tr>
<tr>
<td>B7204SVIAL</td>
<td>CutSmart® Buffer</td>
<td>10064406</td>
<td>Pass</td>
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<td>B7024SVIAL</td>
<td>Gel Loading Dye, Purple (6X)</td>
<td>10064412</td>
<td>Pass</td>
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</table>

Assay Name/Specification

Non-Specific DNase Activity (16 Hour)  
A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 100 Units of ApaI incubated for 16 hours at 25°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.  
Lot # 10062635  
Pass

Exonuclease Activity (Radioactivity Release)  
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 ApaI incubated for 4 hours at 25°C releases <0.1% of the total radioactivity.  
Pass

Ligation and Recutting (Terminal Integrity)  
After a 10-fold over-digestion of pXba DNA with ApaI, >95% 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 ApaI.  
Pass

Endonuclease Activity (Nicking)  
A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 Units of ApaI incubated for 4 hours at 25°C results in <20%  
Pass
<table>
<thead>
<tr>
<th>Assay Name/Specification</th>
<th>Lot # 10062635</th>
</tr>
</thead>
<tbody>
<tr>
<td>conversion to the nicked form as determined by agarose gel electrophoresis.</td>
<td></td>
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</table>

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

Penghua Zhang  
Production Scientist  
07 Jan 2020

Jay Minichiello  
Packaging Quality Control Inspector  
05 Feb 2020