New England Biolabs
Certificate of Analysis

Product Name: MspJI
Catalog #: R0661S/L
Concentration: 5,000 units/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pBR322 (dcm+) DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot #: 0021303
Assay Date: 03/2013
Expiration Date: 03/2015
Storage Temp: -20 °C
Storage Conditions: 300 mM NaCl, 10 mM Tris·HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0661S/L v1.0
Effective Date: 19 Aug 2013

<table>
<thead>
<tr>
<th>Assay Name/Specification</th>
<th>Lot #0021303</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exonuclease Activity (Radioactivity Release)</td>
<td>Pass</td>
</tr>
<tr>
<td>- A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 15 units of MspJI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</td>
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<tr>
<td>Non-Specific DNase Activity (16 hour) - A 50 µl reaction in NEBuffer 4 containing 1 µg of pBR322 DNA and a minimum of 5 units of MspJI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.</td>
<td>Pass</td>
</tr>
<tr>
<td>Protein Purity Assay (SDS-PAGE) - MspJI is &gt;95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</td>
<td>Pass</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.

Authorized by
Derek Robinson
19 Aug 2013

Inspected by
Mala Samaranayake
19 Aug 2013