

## New England Biolabs Certificate of Analysis

**Product Name:** PspOMI  
**Catalog Number:** R0653L  
**Concentration:** 20,000 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 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10109124  
**Expiration Date:** 04/2023  
**Storage Temperature:** -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-R0653S/L v1.0

| PspOMI Component List |                       |            |                      |
|-----------------------|-----------------------|------------|----------------------|
| NEB Part Number       | Component Description | Lot Number | Individual QC Result |
| R0653LVIAL            | PspOMI                | 10105054   | Pass                 |
| B6004SVIAL            | rCutSmart™ Buffer     | 10107577   | Pass                 |

| Assay Name/Specification   | Lot # 10109124 |
|--|----------------|
| <p><b>Ligation and Recutting (Terminal Integrity)</b><br/>           After a 20-fold over-digestion of pXba DNA with PspOMI, &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 PspOMI.</p>                                     | Pass           |
| <p><b>Exonuclease Activity (Radioactivity Release)</b><br/>           A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 200 units of PspOMI incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p> | Pass           |
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 200 Units of PspOMI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p> | Pass           |
| <p><b>Endonuclease Activity (Nicking)</b><br/>           A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 60 Units of PspOMI incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>          | Pass           |

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

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