

New England Biolabs Product Specification

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| <i>Product Name:</i> | <i>SspI</i> |
| <i>Catalog #:</i> | <i>R0132S/L</i> |
| <i>Concentration:</i> | <i>5,000 units/ml</i> |
| <i>Unit Definition:</i> | <i>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.</i> |
| <i>Shelf Life:</i> | <i>24 months</i> |
| <i>Storage Temp:</i> | <i>-20°C</i> |
| <i>Storage Conditions:</i> | <i>250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA</i> |
| <i>Specification Version:</i> | <i>PS-R0132S/L v2.0</i> |
| <i>Effective Date:</i> | <i>02 Nov 2021</i> |

Assay Name/Specification (minimum release criteria)

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in 1X NEBuffer EcoRI/SspI containing 1 µg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 100 units of SspI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Ligation and Recutting (Terminal Integrity) - After a 10-fold over-digestion of Lambda DNA with SspI, >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 SspI.

Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in 1X NEBuffer EcoRI/SspI containing 1 µg of Lambda DNA and a minimum of 15 units of SspI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Protein Purity Assay (SDS-PAGE) - SspI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.

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Date 02 Nov 2021

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