

## New England Biolabs Product Specification

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|-------------------------------|---|
| <i>Product Name:</i>          | <i>BsaWI</i>  |
| <i>Catalog #:</i>             | <i>R0567S/L/V</i>   |
| <i>Concentration:</i>         | <i>10,000 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 60°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>50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA</i>  |
| <i>Specification Version:</i> | <i>PS-R0567S/L v1.0</i>   |
| <i>Effective Date:</i>        | <i>09/23/2013</i>   |

### Assay Name/Specification (minimum release criteria)

**Exonuclease Activity (Radioactivity Release)** - 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 50 units of BsaWI incubated for 4 hours at 60°C releases <0.1% of the total radioactivity.

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

**Non-Specific DNase Activity (16 Hour)** - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BsaWI incubated for 16 hours at 60°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

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Date 09/23/2013

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Quality Approver

