

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>BmrI</i>
<i>Catalog #:</i>	<i>R0600S/L/V</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 (Hind III digest) 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>300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA</i>
<i>Specification Version:</i>	<i>PS-R0600S/L v1.0</i>
<i>Effective Date:</i>	<i>06/28/2013</i>

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

**Endonuclease Activity (Nicking)** - A 50 µl reaction in NEBuffer 2.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 units of BmrI incubated for 4 hours at 37°C results in <50% conversion to the nicked form as determined by agarose gel electrophoresis.

**Ligation and Recutting (Terminal Integrity)** - After a 2-fold over-digestion of Lambda HindIII DNA with BmrI, ~75% 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 BmrI.

**Non-Specific DNase Activity (16 Hour)** - A 50 µl reaction in NEBuffer 2.1 containing 1 µg of Lambda HindIII DNA and a minimum of 5 Units of BmrI 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)** - BmrI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.

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