

New England Biolabs Product Specification

<i>Product Name:</i>	<i>T4 Phage β-glucosyltransferase (T4-BGT)</i>
<i>Catalog #:</i>	<i>M0357S/L</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 protect 0.5 μg T4gt-DNA against cleavage by MfeI restriction endonuclease.</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>200 mM NaCl, 20 mM KPO₄, 0.25 mM DTT, 0.1 mM EDTA, 50% Glycerol, (pH 7.0 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0357S/L v1.0</i>
<i>Effective Date:</i>	<i>13 Jun 2018</i>

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 μ l reaction in CutSmart[®] Buffer containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 100 units of T4 Phage β -glucosyltransferase (T4-BGT) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Exonuclease Activity (Radioactivity Release) - A 50 μ l reaction in CutSmart[®] Buffer containing 1 μ g of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 100 units of T4 Phage β -glucosyltransferase (T4-BGT) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Non-Specific DNase Activity (16 Hour) - A 50 μ l reaction in CutSmart[®] Buffer containing 1 μ g of Lambda DNA and a minimum of 100 units of T4 Phage β -glucosyltransferase (T4-BGT) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.



Date 13 Jun 2018

Derek Robinson
Director of Quality Control

