

## New England Biolabs Product Specification

<i>Product Name:</i>	<i>AbaSI</i>
<i>Catalog #:</i>	<i>R0665S</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 T4 wild-type phage DNA (fully ghmC-modified) in 1 hour at 25°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>100 mM KCl , 10 mM Tris-HCl (7.4), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 0.5 % Tween-20 , 0.5 % IgepalCA-630</i>
<i>Specification Version:</i>	<i>PS-R0665S v1.0</i>
<i>Effective Date:</i>	<i>27 Sep 2013</i>

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

**Endonuclease Activity (Nicking)** - A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled pBR322 dcm+ DNA and a minimum of 30 units of AbaSI incubated for 4 hours at 16°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.

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

**Non-Specific DNase Activity (16 Hour)** - A 50 µl reaction in NEBuffer 4 containing 1 µg of T4 GT7 (dC) DNA and a minimum of 50 units of AbaSI incubated for 16 hours at 25°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

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



Date 27 Sep 2013

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Director of Quality Control

