

## CERTIFICATE OF ANALYSIS

<b>Product:</b>	<b>LightNing™ BstBI</b>
<b>Concentration:</b>	<b>1 rxn / μl</b>
<b>Lot No.:</b>	<b>2024/07</b>
<b>Expiry Date:</b>	<b>2025/07</b>
<b>Storage:</b>	<b>-20°C</b>

TESTS	SPECIFICATIONS	RESULTS
<b><i>Protein Purity (SDS-PAGE):</i></b>	The enzyme is ≥95% pure as determined by SDS-PAGE analysis using Coomassie Blue staining.	Pass
<b><i>Functional Test:</i></b>	A 20 μl reaction in CutOne™ Buffer containing 1 μg of λDNA and 1 μl of LightNing™ BstBI incubated for 15 minutes at 37°C results in complete digestion as determined by agarose gel electrophoresis.	Pass
<b><i>Prolonged Incubation / Star Activity Assay:</i></b>	A 20 μl reaction in CutOne™ Buffer containing 1 μg of λDNA and 1 μl of LightNing™ BstBI incubated for 3 hours at 37 °C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. Longer incubation may result in star activity.	Pass
<b><i>Ligation and Recutting:</i></b>	After 10-fold over-digestion with LightNing™ BstBI at 37°C, >95% of the DNA fragments can be ligated with T4 DNA Ligase at 22°C. Of these ligated fragments, >95% can be recut with LightNing™ BstBI as determined by agarose gel electrophoresis.	Pass
<b><i>Non-specific Endonuclease Activity:</i></b>	A 20 μl reaction in CutOne™ Buffer containing 1 μg of supercoiled plasmid and 1 μl of LightNing™ BstBI incubated for 4 hours at 37 °C results in <10% conversion to the nicked or linearized form as determined by agarose gel electrophoresis.	Pass

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Quality Inspector

