

New England Biolabs Certificate of Analysis

Product Name: BspQI
Catalog Number: R0712S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 50°C in a total reaction volume of 50 µl.
Lot Number: 10025868
Expiration Date: 10/2020
Storage Temperature: -20°C
Storage Conditions: 500 mM KCl , 20 mM Tris-HCl (pH 7.0), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 0.10 % TritonX-100 , 500 µg/ml BSA
Specification Version: PS-R0712S/L v2.0

BspQI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0712SVIAL	BspQI	10025867	Pass
B7203SVIAL	NEBuffer™ 3.1	10021111	Pass

Assay Name/Specification	Lot # 10025868
<p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of supercoiled M13mp18 DNA and a minimum of 10 units of BspQI incubated for 4 hours at 50°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of BspQI incubated for 4 hours at 50°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BspQI, >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 BspQI.</p>	Pass
<p>Non-Specific DNase Activity (16 hour) A 50 µl reaction in NEBuffer 3.1 containing 1 µg of Lambda DNA and a minimum of 10 Units of BspQI incubated for 16 hours at 50°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE:</p>	Pass

Assay Name/Specification	Lot # 10025868
<p>although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.</p> <p>Protein Purity Assay (SDS-PAGE) BspQI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	<p>Pass</p>

This product has been tested and shown to be in compliance with all specifications.



Tony Spear-Alfonso
Production Scientist
11 Oct 2018



Michael Tonello
Packaging Quality Control Inspector
18 Oct 2018