

PRODUCT INFORMATION

**BspQI**

v. 251101

<b>Catalog number</b>	C15052-2500U		
<b>Package &amp; Component</b>	Package	Name	Amount
	2500 U	BspQI (10 U/μL)	250 μL (1 vial)
		10× R Buffer	1.25 mL (2 vial)
<b>Description</b>	<p>BspQI can recognize non-palindromic sequences and cleave outside the recognition site. The recognition sequence of BspQI is 5'-GCTCTTCN1/N4-3', and it is utilized for plasmid digestion to produce poly(A/T/G/C)-terminated linearized DNA fragments with specific cohesive ends. The product is provided in liquid form with optimized reaction buffer containing albumin to enhance enzyme stability, ensuring optimal enzyme performance.</p>		
<b>Source</b>	<i>Escherichia coli</i>		
<b>Endotoxin level</b>	<0.1 EU per 1 mL of the enzyme by the LAL method.		
<b>Unit Definition</b>	One unit of BspQI is defined as the amount of enzyme that cleave 1 μg λDNA in a total reaction volume of 50 μL at 50°C for 1h.		
<b>Concentration</b>	10 U/μL		
<b>Storage Buffer</b>	20 mM Tris-HCl, 500 mM KCl, 0.1 mM EDTA, 1 mM DTT, 500 μg/ml rAlbumin, 50% Glycerol, 0.1% Triton X-100, pH 7		
<b>Storage</b>	<p>This product is stable after storage at:</p> <ul style="list-style-type: none"> <li>-20°C for 12 months in liquid state from date of receipt.</li> </ul>		
<b>Manual</b>	Below reaction mixture should be prepared on ice and combined in the following order:		
	<b>Component</b>	<b>Amount</b>	<b>Final concentration</b>
	ddH <sub>2</sub> O	up to 50 μL	-
	10× R Buffer	5 μL	1X
	DNA substrate	1 μg	0.02 μg/μL
	BspQI (10 U/μL)	1 μL	-
	<ol style="list-style-type: none"> <li>Gently pipetting or tap the tube walls (avoid vortexing), then briefly spin down to collect any wall-adhered droplets.</li> <li>Incubate at 50°C for 15 minutes to 1 hour.</li> <li>To stop the reaction and deactivate the enzyme, incubate at 80°C for 20 minutes, or terminate the reaction by using a purification column or</li> </ol>		

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phenol/chloroform.

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**Notes**

1. The volume of restriction endonuclease added should not exceed 1/10 of the reaction volume to avoid star activity.
  2. DNA substrate should not contain phenol, chloroform, ethanol, EDTA, detergents, or high concentrations of salt, as these can affect the activity of BspQI enzyme.
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