

PRODUCT INFORMATION

BspQI

v. 250901

Catalog number	C15052-2500U		
Package & Component	Package	Name	Amount
	2500 U	BspQI (10 U/μL)	250 μL (1 vial)
		10× R Buffer	1.25 mL (2 vial)
Description	BspQI can recognize non-palindromic sequences and cleave outside the recognition site. It is derived from a recombinant protein encoded by the BspQI gene in <i>Bacillus sphaericus</i>, expressed in <i>E. coli</i>. 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.		
Source	<i>Escherichia coli</i>		
Endotoxin level	<0.1 EU per 1 mL of the enzyme by the LAL method.		
Unit Definition	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.		
Concentration	10 U/μL		
Storage Buffer	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		
Storage	This product is stable after storage at: -20°C for 12 months in liquid state from date of receipt.		
Manual	Below reaction mixture should be prepared on ice and combined in the following order:		
	Component	Amount	Final concentration
	ddH ₂ 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	-
	- Gently pipetting or tap the tube walls (avoid vortexing), then briefly spin down to collect any wall-adhered droplets. - Incubate at 50°C for 15 minutes to 1 hour. - 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 phenol/chloroform.

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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