PRODUCT INFORMATION

GMP ® BspQI

v. 250301

Catalog number	C15052-GMP-2500U
Package & Component	Package: 2500 U Name: BspQI (10 U/μL) Amount: 250 μL (1 vial) Name: 10× R Buffer Amount: 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 Bacillus sphaericus, expressed in E. coli. 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	*Escherichia coli* Animal-free reagent and laboratory Manufactured and tested under GMP guideline
Endotoxin level	<0.1 EU per 1 mL of the enzyme by the LAL method.
Mycoplasma	Not Detected
Nickel (Ni)	Not Detected
Sterility testing	0.22 μm filtered and tested by culture method.
Host Cell Protein	<1 ng/μg of protein tested by ELISA.
Host Cell DNA	<0.2 ng/μg of protein tested by qPCR.
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.
	Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

Manufacturing Specifications	• Animal-free reagent and laboratory • Manufactured and tested under GMP guideline • Testing and traceability of raw material • Records of the maintenance and equipment calibration • Personnel training records • Batch-to-batch consistency • Documentation of QA control and process changes • Manufactured and tested under an ISO 13485:2016 certified quality management system • Stability monitors of product shelf-life
Manuel	Below reaction mixture should be prepared on ice and combined in the following order:

Component	Amount	Final concentration
ddH_2O	up to 50 µL	-
10× R Buffer	5 µL	1X
DNA substrate	1 µg	0.02 µg/µL
BspQI (10 U/µL)	1 µL	10 /rxn

1. Gently pipetting or tap the tube walls (avoid vortexing), then briefly spin down to collect any wall-adhered droplets.
2. Incubate at 50°C for 15 minutes to 1 hour.
3. 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.

For Research Use Only. Not for use in diagnostic and therapeutic procedures.