

## LeadGMP® BspQI

**Catalog Number** LDG003R-GMP

**Package** 500 U / 2,500 U / 10 KU

For full product information, images and publications, please visit [our website](#).



### Overview

#### Product Note

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

#### Components

Specification	Item	Amount
500 U	BspQI (10 U/μL)	(1 vial) 50 μL
	10× R Buffer	(1 vial) 500 μL
2500 U	BspQI (10 U/μL)	(1 vial) 250 μL
	10× R Buffer	(2 vials) 1.25 mL
10 KU	BspQI (10 U/μL)	(1 vial) 1 mL
	10× R Buffer	(8 vials) 1.25 mL

### Specifications

#### Expression System

Escherichia coli

#### 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

**Endotoxin Level**

<0.1 EU per 1 mL of the enzyme by the LAL method.

**Form**

Liquid

**Activity**

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.

**Mycoplasma**

Not detected

**Background****Background**

BspQI is a restriction enzyme derived from bacteria that recognizes and cuts specific DNA sequences. Its recognition sequence is 5'-GCTCTTC-3', with the cleavage site located downstream from the recognition sequence. BspQI is commonly used in molecular biology applications such as genome editing, cloning, and DNA mapping due to its ability to precisely cut DNA at defined sites, facilitating further analysis and manipulation of the DNA molecules.

**Instruction****Shipping**

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long term storage.

**Stability & Storage**

This product is stable after storage at:

- -20°C for long-term storage under sterile conditions.

### Manufacturing Specifications

LeadGMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP certified facility. The processes include:

- 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 monitor of product shelf-life

### Image

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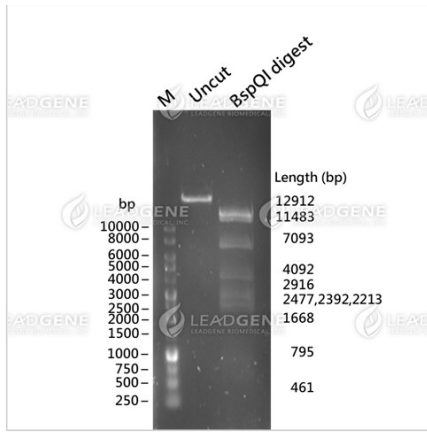
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The enzyme activity of BspQI

In a 50  $\mu$ L reaction system, 1  $\mu$ g of  $\lambda$ DNA was treated with the 1U/ $\mu$ L of BspQI. The reaction was incubated at 50  $^{\circ}$ C for 60 minutes, followed by incubation at 80  $^{\circ}$ C for 20 minutes to inactivate BspQI.

M: DNA marker

Uncut: The control group was not treated with BspQI.

BspQI digest: The sample group was treated with BspQI.