LEADGENE
LEADGENE BIOMEDICAL, INC.

Product Information & Manual

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LeadGMP® BspQI

Cat no. LDG003R-GMP

Product Overview

Package component

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

Description

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.

Source

Escherichia coli.

(Animal-free reagent and laboratory Manufactured and tested under GMP guideline)

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.

Storage buffer

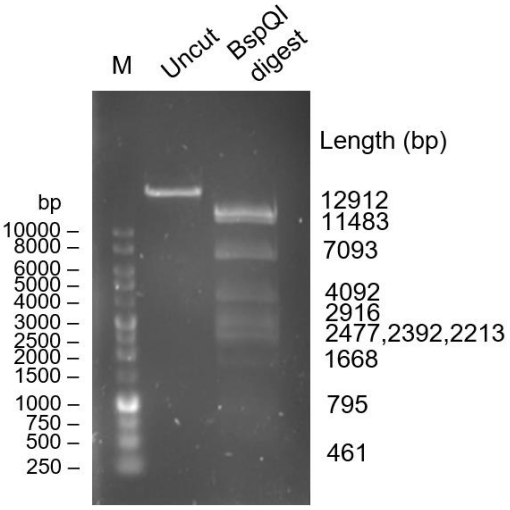
20 mM Tris-HCl, 500 mM KCl, 0.1 mM EDTA, 1 mM DTT, 500 μg/ml rAlbumin, 50% Glycerol, 0.1% Triton X-100, pH 7.

Storage and Stability

The product is stable for long-term storage at -20°C under sterile conditions.

Procedure

1. Add 1 μg of DNA substrate, 1 μL of BspQI (10 U/μL), 5 μL of 10× R Buffer, and an appropriate volume of ddH_2O to reach a final reaction volume of 50 μL.
2. Gently pipette or tap the tube walls (avoid vortexing), then briefly spin down to collect any droplets adhered to the walls.
3. Incubate at 50°C for 15 minutes to 1 hour.
4. To stop the reaction and deactivate the enzyme, incubate at 80°C for 20 minutes, or terminate the reaction using a purification column or phenol/chloroform.



Important 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.

Disclaimer

This product is for research use only and is not intended for diagnostic use.

LEADGENE
www.leadgenebio.com
TEL: +886-6-253-6677 • Email: info@leadgene.com.tw • No.9, Ln. 147, Zhengbei 1st Rd., Yongkang Dist., Tainan City 710, Taiwan