BspQI

Cat. No. : RK21176

Product Components

Components	Component Number	Concentration	500 U
BspQI	RM21676	10,000 U/mL	50 μL
10X BspQI Buffer	RM20823	10X	1 mL

Product Description

Restriction Site

5'...G C T C T T C $(N)_1$▼...3'

3'...C G A G A A G $(N)_4$ ▲...5'

Unit Definition

One unit is defined as the amount of enzyme required to digest 1 μg of λDNA in 1 hour at 50°C in a total reaction volume of 50 μL.

Storage

-20°C

Reaction Conditions

1X BspQI Buffer, incubate at 50°C.

Heat Inactivation

80°C for 20 min.

Instructions

Recommended Protocol for Digestion

Components	Volume
ddH_2O	Up to 50 μL
10X BspQI Buffer	5 μL
DNA*	1 μg
BspQI	1 μL

* Note: DNA substrates should be free of phenol, chloroform, ethanol, EDTA, detergents or high concentrations of salt, otherwise it will affect the enzyme activity.

- Mix components by pipetting the reaction mixture up and down, or by "flicking" the reaction tube. Follow with a quick ("touch") spin-down in a microcentrifuge. Do not vortex the reaction.
- Incubate at 50°C for 15 min-1 hr.
- Inactivated at 80°C for 20 min. (Optional)

Note

1. Enzyme

- Keep on ice when not in the freezer.
- Should be the last component added to reaction.

2. DNA

- Should be free of contaminants such as phenol, chloroform, alcohol, EDTA, detergents or excessive salts. Extra wash steps during purification are recommended.
- Methylation of DNA can inhibit digestion with certain enzymes.
- Methylation Sensitivity

Dam	not sensitive
Dcm	not sensitive
CpG	not sensitive
EcoKI	not sensitive
EcoBI	not sensitive

3. Reaction Volume

- A 50 μL reaction volume is recommended for digestion of 1 μg of substrate.
- Enzyme volume should not exceed 10% of the total reaction volume to prevent star activity due to excess glycerol.
- Additives in the restriction enzyme storage buffer (e.g., glycerol, salt) as well as contaminants found in the substrate solution (e.g., salt, EDTA, or alcohol) can be problematic in smaller reaction volumes.