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BspQI

Catalog #BSP-BE101

Product Component	Sizes
BspQI (10U/μL)	1000U / 10kU
10X BspQI Reaction Buffer	800μL / 8mL

Storage/Transportation Condition Store at -20°C ± 5°C for up to 24 months. Avoid repeated freeze/thaw cycles. Transport on dry ice.
Form Liquid
Source *E. coli*
Storage Buffer 20 mM Tris-HCl, 500 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 μg/mL recombinant Albumin, 0.1% Triton X-100, pH 7
10X BspQI Reaction Buffer 500 mM Tris-HCl, 100 mM $MgCl_2$, 50 mM DTT and 10 mM ATP，pH 7.6
Concentration 10U/μL
Unit Definition One unit is defined as the amount of enzyme required to digest 1 μg of λ DNA in 1 hour at 50°C in a total reaction volume of 50 μL.

Restriction Site
5'...GCTCTTC(N)1↓...3'
3'...CGAGAAG(N)4↑...5'

Product Description
BspQI is a Type IIS restriction enzyme that recognizes asymmetric DNA sequences and cleaves outside of the recognition site. BspQI completes cleavage within 15 to 30 min at 50°C. Recombinant Albumin was added to the 10X BspQI Reaction Buffer for stability and consistency. Isoschizomers for BspQI include SapI, PciSI and LguI.

Quality Statement
This product is GMP-Ready, indicating that it is currently manufactured at industrial-grade and can be moved to GMP-Grade manufacturing standards as necessary.

Applications
- Molecular Cloning
- Restriction site mapping
- Genotyping
- SNP

Recommended Protocol for Digestion
1. Make the reaction mixture according to the table below:

Reagent	Quantity
DNA	1 μg
10X BspQI Reaction Buffer	5 μL
BspQI (10U/μL)	1 μL*
Nuclease-free H_2O	To 50 μL

*Add BspQI last. It is recommended that the volume of BspQI should not exceed 10% of the reaction volume as high glycerol concentration (>5% v/v) may cause star activity.

2. Mix gently and incubate at 50°C for 1-2 hours.
3. Heat inactivation at 80 °C for 20 minutes to stop the reaction.

Notes
1. BspQI is not sensitive to dam or dcm or CpG methylation.
2. It is recommended to purify DNA sample before cleavage if there is contamination of phenol, chloroform, alcohol, EDTA or detergents which may interfere with restriction enzyme activity.