Nt.BspQI

WEB: www.abclonal.com

Catalog: RK21300
Size: 1,000 U / 5,000 U
Concentration: 10,000 U/mL
Components:

Nt.BspQI (10,000 U/mL)	RM21701
10X Buffer CutC	RM20106

Product Description

Recognition site:

Nt.BspQI is a nicking endonuclease that cleaves only one strand of DNA on a double-stranded DNA substrate.

- This is a nicking endonuclease
- Generates DNA molecules that are “nicked”, rather than cleaved

Unit Definition:
One unit is defined as the amount of enzyme required to convert 1 μg of supercoiled pUC19 DNA to open circular form in 1 hour at 50 ℃ in a total reaction volume of 50 μL.

Storage Conditions:
10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 500 μg/mL BSA, 50% Glycerol, pH 7.4 @ 25 ℃

Storage Temperature: -20 ℃

Reaction Conditions:
1X Buffer CutC. Incubate at 50 ℃.

1X Buffer CutC:
100 mM NaCl, 50 mM Tris-HCl, 10 mM $MgCl_2$, 100 μg/mL BSA, pH 7.9 @ 25 ℃

Quick Cut: No

Activity in ABclonal Buffer

CutA	CutB	CutC	CutS
10%	25%	100%	10%

Heat Inactivation: 80 ℃ for 20 min

Methylation Sensitivity:

dam methylation	Not Sensitive
dcm methylation	Not Sensitive
CpG Methylation	Not Sensitive

Activity at Temperature
@37 ℃: 80%

Instructions

A "Typical" Nt.BspQI Digest:

Composition	Amount
H_2O	Up to 50 μl
10x Buffer CutC	5 μl
DNA*	1 μg
Nt.BspQI	0.5-1μl 10 units is sufficient, generally 1 μl is used

- *DNA substrates should be free of phenol, chloroform, ethanol, EDTA, detergents or high concentrations of salt, otherwise it will affect the enzyme activity.
- A minimum of 0.25 unit is required to digest 1 μg of substrate DNA in 16 hours.
- Incubation at 37 ℃ results in 80% activity.

QC Process:

- Purity is above 95% detected by SDS-PAGE.
- No exonuclease, nuclease contamination.
- Host genomic DNA is no residual detected by PCR.