Nicking Enzymes Nt.BstNBI

Cat#: 8052751

[Product Name]
Nicking Enzymes Nt.BstNBI

[Model & Specification]

Product Name	Cat No.	Size	Component No.	Component Name	Component Size	Quantity
Nicking Enzymes Nt.BstNBI	8052751	2000 units	8052751-1	Nicking Enzymes Nt.BstNBI (10 units/μL)	2000 units	1 bottle
			8052751-2	NickingCut 10×Buffer	1 mL	2 bottles

[Product Description]
Nicking Enzymes Nt.BstNBI is a nicking enzyme which digests only one strand of dsDNA substrate. The digested dsDNA substrate would produce a nick and not be completely digested. It is suitable for nicking enzyme amplification reaction, preparation of probe, assembly of large DNA fragments, etc.

[Restriction Enzyme Site]
5'...G A G T C N N N N↓N...3'
3'...C T C A G N N N N N...5'

[Storage And Transportation]
Store at -25℃~-15℃ for 24 months.
Dry ice transportation.

[Activity Definition]
1 unit is defined as the amount of enzyme required to digest 1 μg of pUC19 DNA to form an open ring state in a 50 μL reaction system within 60 minutes at the optimal reaction temperature.

[Recommended Reaction Conditions]
1× NickingCut 10×Buffer;
Incubate at 55°C;
Refer to "Protocol for DNA Digestion" for reaction setup;
The activity of the enzyme reaches 50% when digesting the substrate at 37°C.

[Heat Inactivation]
Incubation at 80°C for 20 minutes.

[Quality Control]
Prolonged Incubation / Star Activity Assay
At the optimal reaction temperature, 10 units of Nicking Enzymes Nt.BstNBI were incubated with pUC19 DNA for 16 hours. No other nuclease contamination or non-specific degradation of the substrate caused by asterisk activity was detected.
RNase Activity
The 10 units of Nicking Enzymes Nt.BstNBI was tested in a reaction containing an RNA substrate. After incubation for 1 hour at the optimal reaction temperature, there was no detectable degradation of the RNA substrate as determined by gel electrophoresis.

[Method Of Application]

1. Protocol for DNA Digestion

① Combine the following reaction components on ice in the order indicated:

Components	Amount
DNA[a]	≤ 1 μg
Nicking Enzymes Nt.BstNBI	10 units
NickingCut 10×Buffer	5 μL
ddH_2O	Up to 50 μL

a. The DNA substrate should not contain phenol, chloroform, ethanol, EDTA, detergent or high-concentration salt, otherwise it will affect the activity of Nicking Enzymes Nt.BstNBI enzyme;

② Gently mix or flick the tube wall to mix well (never vortex), then centrifuge instantaneously to collect reaction solution;

③ Incubate at 55℃ for 30 minutes~60 minutes ;

④ Inactivate the enzyme by heating for 20 minutes at 80℃, or terminate the reaction by adsorption column or phenol/chloroform purification (optional).

2.Precautions

① The combined volume of the enzymes in the reaction mixture should not exceed 1/10 of the total reaction volume;

② The additives (such as glycerol, salt) in the enzyme storage buffer are the same as the contaminants (such as salt, EDTA, ethanol, etc.) in the substrate solution. Therefore, the smaller the reaction volume, the stronger the inhibitory effect of the enzyme cleavage reaction;

[Number Of Recognition Sites In DNA]

λDNA	ΦX174	pBR322	pUC57	pUC18/19	SV40	M13mp18/19	Adeno2
61	10	4	3	4	5	8	40

[Methylation Effects On Digestion]

Dam	Dcm	CpG	EcoKI	EcoBI
No effect	No effect	No effect	No effect	No effect

[Icon Descriptions]


The enzyme's optimum reaction temperature is 55℃


Inactivate the enzyme by heating for 20 minutes at 80℃

[Description Of Product Symbol]

Product Symbol	Description	Product Symbol	Description
REF	Catalog Number	LOT	Batch Code
	Date of Manufacture		Manufacturer
	Temperature limit		Use-by date
	Consult instructions for use		Keep away from sunlight

[Company Information]

Manufacturer and after-sales service unit Name: Shenzhen Dakewe Bio-engineering Co., Ltd.
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