

MspA 1 I (*NspB II*)

5'...CMGCKG...3'
3'...GKCGMC...5'

Product No : RE1306
Quantity : 200u



Lot :
Expiry Date :
Concentration : 5u/μl
Supplied with : 1ml of 10X Buffer V5
1ml of 10X Buffer UB
0.5ml Diluent Viva Buffer A

(BSA included in all Reaction Buffer)

Store at -20°C

Store at -70°C for period longer than 30days.



info@vivantechnologies.com

Reaction Conditions:

Buffer V5 ,

30mM Tris-acetate (pH 7.9 at 30°C), 10mM Mg-acetate, 60mM K-acetate, and 100μg/ml BSA.

Incubate at 37°C.

Dilution: Viva Buffer A

10mM Tris-HCl (pH 7.4 at 25°C), 50mM KCl, 0.1mM EDTA, 1mM DTT, 200μg/ml BSA and 50% glycerol.

Thermal Inactivation: 65°C for 20 minutes

Storage Buffer:

20mM Tris-HCl (pH7.6), 300mM NaCl, 0.1mM EDTA, 7mM 2-mercaptoethanol, 10mM MgCl₂, 200μg/ml BSA and 50% glycerol.

Unit Definition:

1u is defined as the amount of enzyme that is required to digest 1μg of DNA in 1 hour at 37°C in 50μl of assay buffer.

Quality Control Assays:

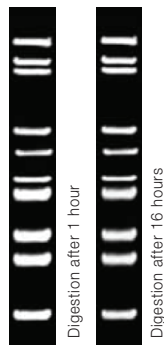
Ligation/ Recutting Assay:

After 5-fold overdigestion with *MspA 1 I*, 60% of the DNA fragments can be ligated and recut.

Overdigestion assay:

An unaltered banding pattern was observed after 1μg of DNA was digested with 10u of *MspA 1 I*, for 16 hours at 37°C .

λ DNA
0.7% Agarose



* Buffer UB is provided for double digestion purpose.

| Activity in Reaction Buffer | | | | |
|-----------------------------|------|-----|------|------|
| V1 | V2 | V3 | V4 | V5 |
| 100% | 100% | 75% | 100% | 100% |

| Buffer UB | | | |
|-----------|------|------|------|
| 0.5X | 1.0X | 1.5X | 2.0X |
| 75% | 75% | 75% | 75% |

NOTE:

- * Total reaction volume dependent on experiment.
- * The amount of enzyme to be used is very much dependent on the DNA template.
- * For plasmid DNA, 5-10X more enzyme is required.

Example of Digestion Reaction

Enzyme : 1 unit
Lambda 0.3μg/μl : 3.33μl (1μg DNA)
10X Reaction Buffer : 5μl
Sterile Distilled Water : Up to 50μl

Product Use Limitation

This product is for research purposes and *in vitro* use only.