

Msp I
(Hpa II)



Product No : RE1302
Quantity : 1000u



Lot :
Expiry Date :
Concentration : 20u/μl
Supplied with : 1ml of 10X Buffer V2
1ml of 10X Buffer UB
0.5ml Diluent Viva Buffer A
(BSA included in all Reaction Buffer)
Store at -20°C



info@vivantechnologies.com

Reaction Conditions:

Buffer V2,

10mM Tris-HCl (pH 7.5 at 30°C), 10mM MgCl₂,
50mM NaCl, 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:

10mM Tris-HCl (pH 7.5), 50mM KCl, 0.1mM EDTA,
7mM 2-mercaptoethanol, 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:

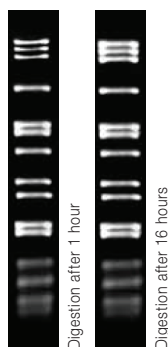
Ligation/ Recutting Assay:

After 20-fold overdigestion with **Msp I**, more than 90% of the DNA fragments can be ligated and recut.

Overdigestion assay:

An unaltered banding pattern was observed after 1μg of DNA was digested with 40u of **Msp I** for 16 hours at 37°C.

λ DNA
1.2% Agarose



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

| Buffer UB | | | |
|-----------|------|------|------|
| 0.5X | 1.0X | 1.5X | 2.0X |
| 50% | 50% | 50% | 25% |

* Buffer UB is provided for double digestion purpose.

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.