

## Bsp13 I (BspM II)



Product No : RE1186  
Quantity : 500u



Lot :  
Expiry Date :  
Concentration : 20u/μl  
Supplied with : 1ml of 5X Buffer Bsp13 I  
1ml of 10X Buffer UB  
0.5ml of Diluent Viva Buffer A

(BSA included in all Reaction Buffer)

Store at -20°C



info@vivantechnologies.com

### Reaction Conditions:

**Buffer Bsp13 I**,  
10mM Tris-HCl (pH 7.6), 10mM MgCl<sub>2</sub>,  
200mM KCl, and 100μg/ml BSA.

**Incubate at 50°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), 200mM 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 50°C in 50μl of assay buffer.

### Quality Control Assays:

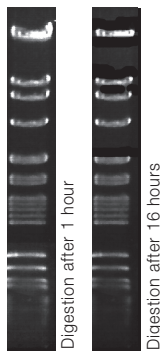
#### Ligation/ Recutting Assay:

After 20-fold overdigestion with **Bsp13 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 **Bsp13 I** for 16 hours at 50°C.

λ DNA  
(dam- & dcm-)  
0.7% Agarose



Activity in Reaction Buffer				
V1	V2	V3	V4	V5
25%	50%	75%	75%	75%

Buffer UB			
0.5X	1.0X	1.5X	2.0X
0%	10%	75%	75%

\* Buffer UB is provided for double digestion purpose.

### NOTE:

- \* Blocked by dam methylation.
- \* 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 DNA (0.3μg/μl) : 3.33μl (1μg DNA)  
10X Reaction Buffer : 10μl  
Sterile Distilled Water : Up to 50μl

#### Product Use Limitation

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