



Product No. : RE1216  
Quantity : 100u



Lot :  
Expiry Date :  
Concentration : 2u/μl  
Supplied with : 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 1X UB,

25mM Tris-acetate (pH 7.6 at 30°C), 10mM Mg-acetate, 100mM K-acetate, 7mM 2-Mercaptoethanol and 50μg/ml BSA.

**Incubate at 65°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:** 80°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 65°C in 50μl of assay buffer.

### Quality Control Assays:

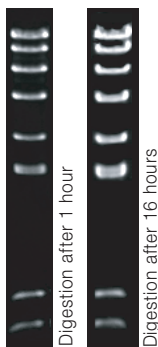
#### Ligation/ Recutting Assay:

After 2-fold overdigestion with **BstEN I**, more than 60% of the DNA fragments can be ligated and of these 90% recut.

#### Overdigestion assay:

An unaltered banding pattern was observed after 1μg of DNA was digested with 4u of **BstEN I** for 16 hours at 65°C.

λ DNA  
0.7% Agarose



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

| Buffer UB |      |      |      |
|-----------|------|------|------|
| 0.5X      | 1.0X | 1.5X | 2.0X |
| 75%       | 100% | 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.