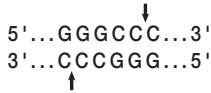


## Apa I



Product No : RE1124  
Quantity : 600u



Lot :  
Expiry Date :  
Concentration : 10u/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



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:

10mM Tris-HCl (pH 7.5), 200mM NaCl, 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:

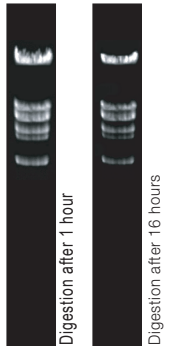
#### Ligation/ Recutting Assay:

After 10-fold overdigestion with **Apa 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 20u of **Apa I** for 16 hours at 37°C.

λ DNA (dam<sup>-</sup> & dcm<sup>-</sup>)  
(BamH I Digest)  
0.7% Agarose



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

Buffer UB			
0.5X	1.0X	1.5X	2.0X
50%	50%	75%	75%

\* Buffer UB is provided for double digestion purpose.

### NOTE:

- \* Blocked by overlapping dcm-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 (BamH I Digest) DNA 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.