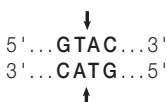


# Rsa I



Product No : RE1324  
Quantity : 500u



Lot :  
Expiry Date :  
Concentration : 20u/μl  
Supplied with : 1ml of 10X Buffer V1  
1ml of 10X Buffer UB  
0.5ml Diluent Viva Buffer A

(BSA included in all Reaction Buffer)

Store at -20°C



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### Reaction Conditions:

#### Buffer V1,

10mM Tris-HCl (pH 7.5 at 30°C), 10mM MgCl<sub>2</sub>, 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:** None

#### Storage Buffer:

20mM Tris-HCl (pH 7.5), 100mM NaCl, 0.1mM EDTA, 7mM 2-mercaptoethanol, 100μg/ml BSA and 50% glycerol.

#### Unit Definition:

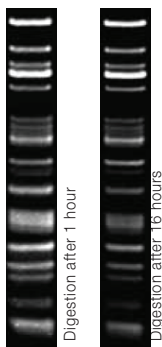
1u is defined as the amount of enzyme that is required to digest 1μg of DNA in 1 hour at 37°C in 50μl of assay buffer.

#### Quality Control Assays:

##### Ligation/ Recutting Assay:

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

λ DNA  
1.0% Agarose



##### Overdigestion assay:

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

Activity in Reaction Buffer				
V1	V2	V3	V4	V5
100%	100%	50%	50%	100%

Buffer UB			
0.5X	1.0X	1.5X	2.0X
50%	50%	25%	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 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.