# V i V a n t i S restriction endonuclease

#### Product Datasheet



5'...GGCC...3' 3'...CCGG...5' Product No: RV1182 Quantity: 1000u



Lot : Expiry Date :

Concentration :  $10u/\mu l$ Supplied with : 1ml of

with : 1ml of 10X Buffer V4

1ml of 10X Buffer UB

0.5ml of Diluent Viva Buffer A (BSA included in all Reaction Buffer)

Store at -20°C



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## Reaction Conditions:

## Buffer V4,

10mM Tris-HCl (pH 8.5 at 30°C), 10mM MgCl $_{\! 2},$  100mM KCl, and 100 $\mu g/ml$  BSA.

Incubate at 37°C.

Dilution: Viva Buffer A

10mM Tris-HCI (pH 7.4 at 25°C), 50mM KCI, 0.1mM EDTA,

1mM DTT, 200μg/ml BSA and 50% glycerol.

Thermal Inactivation: 80°C for 20 minutes

### Storage Buffer:

10mM Tris-HCl (pH 7.6), 10mM NaCl, 0.1mM EDTA, 1mM DTT, 200μg/ml BSA and 50% glycerol.

#### Unit Definition:

1u is defined as the amount of enzyme that is required to digest  $1\mu g$  of DNA in 1 hour at  $37^{\circ}C$  in 50ml of assay buffer.

## Quality Control Assays:

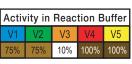
## Ligation/ Recutting Assay:

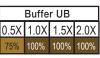
After 10-fold overdigestion with  $\textit{Bsn}\ I,$  more than 90% of the DNA fragments can be ligated and recut.

# λ DNA 1.2% Agarose

# Overdigestion assay:

An unaltered banding pattern was observed after 1µg of DNA was digested with 20u of **Bsn I** for 16 hours at 37°C.





\* 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  $0.3\mu g/\mu l$  :  $3.33\mu l$  ( $1\mu g$  DNA)

10X Reaction Buffer : 5 µl

Sterile Distilled Water : Up to 50µl

Product Use Limitation

This product is for research purposes and *in vitro* use only.  $V_i^{\dagger}$