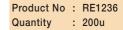
# V *i* V a n t *i* S restriction endonuclease





Lot Expiry Date Concentration Supplied with

5'....**TACGTA**....3'

3'....**ATGCAT**...5'

n : 5u/µl 1 : 1ml of 10X Buffer V1 1ml of 10X Buffer UB 0.5ml Diluent Viva Buffer A (BSA included in all Reaction Buffer)

info@vivantechnologies.com

Store at -20°C



## **Reaction Conditions:**

Buffer V1, 10mM Tris-HCl (pH 7.5 at 30°C), 10mM MgCl<sub>2</sub>, and 100 $\mu$ g/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, 200 $\mu$ g/ml BSA and 50% glycerol.

## Thermal Inactivation: None

#### Storage Buffer:

10mM Tris-HCl (pH 7.5), 250mM 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.

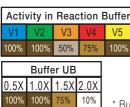
## Quality Control Assays:

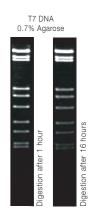
#### Ligation/ Recutting Assay:

After 5-fold overdigestion with **BstSN I**, about 70% of the DNA fragments can be ligated and recut.

#### Overdigestion assay:

An unaltered banding pattern was observed after 1µg of DNA was digested with 10u of **BstSN I** for 16 hours at 37°C.





\* Buffer UB is provided for double digestion purpose.

## NOTE:

- \* High enzyme concentration may result in *Star Activity*.
- \* Overdigestion in Buffer V2 and V5 will cause Star Activity.
- \* 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           |
| T7 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.  $V \stackrel{i}{l} V \stackrel{a}{a} \stackrel{n}{l} \stackrel{t}{l} \stackrel{i}{S} |$  www.vivantechnologies.com