vivantis

RESTRICTION ENDONUCLEASE

Product Datasheet

# *Bst*DS I (*Dsa* I)

5'...CCRYGG...3'
3'...GGYRCC...5'

**Product No : RE1214**
**Quantity : 500u**


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 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:** None

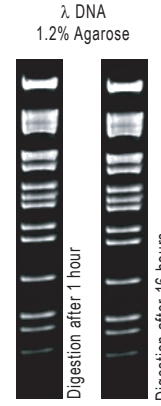
**Storage Buffer:**
10mM Tris-HCl (pH 7.5), 100mM KCl, 0.1mM EDTA, 7mM 2-mercaptoethanol, 200µg/ml BSA and 50% glycerol.

**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 10-fold overdigestion with ***Bst*DS I**, 95% 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 ***Bst*DS I** for 16 hours at 65°C.




| Activity in Reaction Buffer | | | | |
|---|---|---|---|---|
| V1 | V2 | V3 | V4 | V5 |
| 25% | 75% | 100% | 75% | 100% |

| Buffer UB | | | |
|---|---|---|---|
| 0.5X | 1.0X | 1.5X | 2.0X |
| 25% | 50% | 75% | 75% |

* 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 0.3µg/µl | : | 3.33µl (1µg DNA) |
| 10X Reaction Buffer | : | 5µl |
| Sterile Distilled Water | : | Up to 50µl |