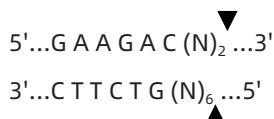


Product Components

| Components | Concentration | Component Number | 500 U |
|-----------------|---------------|------------------|---------|
| BbsI | 20,000 U/mL | RM21631 | 25 µL |
| 10X Buffer CutS | 10X | RM20103 | 1.25 mL |

Product Description

Restriction Site



Unit Definition

One unit is defined as the amount of enzyme required to digest 1 µg of λDNA in 1 hour at 37°C in a total reaction volume of 50 µL.

Storage

-20°C

Reaction Conditions

1X Buffer CutS, incubate at 37°C.

Quick Cut

Yes. This enzyme will digest unit substrate in 5-15 minutes under recommended reaction conditions.

Heat Inactivation

80°C for 20 min.

Instructions

Recommended Protocol for Digestion

| Components | Volume |
|--------------------|-------------|
| ddH ₂ O | Up to 50 µL |
| 10X Buffer CutS | 5 µL |
| DNA* | 1 µg |
| BbsI | 1 µL |

* Note: DNA substrates should be free of phenol, chloroform, ethanol, EDTA, detergents or high concentrations of salt, otherwise it will affect the enzyme activity.

- ◆ Incubate at 37°C for 5-15 min.
- ◆ Inactivated at 80°C for 20 min. (Optional)

Note

1. Enzyme

- Keep on ice when not in the freezer.
- Should be the last component added to reaction.

2. DNA

- Should be free of contaminants such as phenol, chloroform, alcohol, EDTA, detergents or excessive salts. Extra wash steps during purification are recommended.
- Methylation of DNA can inhibit digestion with certain enzymes.
- Methylation Sensitivity

| | |
|--------------|---------------|
| Dam | not sensitive |
| Dcm | not sensitive |
| CpG | not sensitive |
| EcoKI | not sensitive |
| EcoBI | not sensitive |

3. Reaction Volume

- A 50 µL reaction volume is recommended for digestion of 1 µg of substrate.
- Enzyme volume should not exceed 10% of the total reaction volume to prevent star activity due to excess glycerol.
- Additives in the restriction enzyme storage buffer (e.g., glycerol, salt) as well as contaminants found in the substrate solution (e.g., salt, EDTA, or alcohol) can be problematic in smaller reaction volumes.