**BseAI** (BspM II isoschizomer)

5’ …T▼CGGA…3’
3’ …AGGCC▲T…5’

BseAI is a restriction enzyme purified from *Bacillus stearothermophilus*.

**Catalogue No**

107-1, 100 U
107-2, 3x100 U

**Concentration**

10-12u/μl and 40-60u/μl*

*Add an H to cat.# to order the high concentration

**Reagents supplied:** 10x U<sub>BseAI</sub> or K buffer

**Unit substrate:** Lambda DNA.

**Unit calculation assay conditions:** 100 mM NaCl, 10 mM Tris-HCl (pH 8.0 @ 25°C), 5 mM MgCl₂, 1 mM dithiothreitol, 0.02% Triton X-100, 100 μg/ml BSA. Incubate at 55°C.

**Absence of contaminants:** 400 units of BseAI do not produce any unspecific cleavage products after 16 hrs incubation with 1 μg of λ DNA at 55°C. After 100-fold overdigestion with BseAI, greater than 98% of the DNA fragments can be ligated and recut with this enzyme.

**Storage buffer:** 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 500 μg/ml BSA and 50% glycerol. Store at -20°C.

**Heat inactivation:** No.


**Percent Activity in MINOTECH Buffers**

<table>
<thead>
<tr>
<th>L</th>
<th>M</th>
<th>H</th>
<th>SH</th>
<th>A</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>50</td>
<td>75-100</td>
<td>50-75</td>
<td>10</td>
<td>100</td>
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</tbody>
</table>

**General reaction mixture:**

- 10U BseAI 1μl
- 10x U<sub>BseAI</sub> or K buffer * 2μl
- DNA substrate <1μg
- Sterile ultrapure water Up to 20 μl

*In the case of U<sub>BseAI</sub> buffer we recommend the addition of BSA to a final concentration of 100 μg/ml.

**Frequency of Cutting**

<table>
<thead>
<tr>
<th>λ</th>
<th>Ad-2</th>
<th>φX174</th>
<th>pUC18</th>
<th>M13mp18</th>
<th>pBR322</th>
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</thead>
<tbody>
<tr>
<td>24</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Lambda DNA 0.7 % agarose