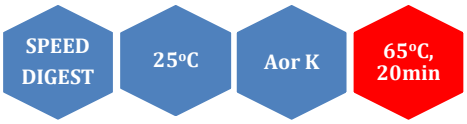
Sma I



5' ···CCC▼GGG···3'
3' ···GGG▲CCC···5'

SmaI is a restriction enzyme purified from *Serratia marcescens* (ATCC 49779).

Catalogue No — *135-1, 2500 U*
135-2, 3x2500 U

Concentration — *10-12u/µl and 40-60u/µl**

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

Reagents supplied: 10x A and 10x K buffer

Unit substrate: Lambda DNA (HindIII digest).

Unit calculation assay conditions: 50 mM potassium acetate, 20 mM Tris-acetate (pH 7.9 @ 25°C), 10 mM magnesium acetate, 1 mM dithiothreitol, 100 µg/ml BSA. Incubate at 25°C.

Absence of contaminants: 150 units of *Sma*I do not produce any unspecific cleavage products after 16 hrs incubation with 1 µg of λ DNA (*Hind*III digest) at 25°C. After 50-fold overdigestion with *Sma*I, greater than 95% 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, 200 µg/ml BSA and 50% glycerol. Store at -20°C.

Heat inactivation: 65°C for 20 minutes.

Methylation Sensitivity:
dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Blocked

Percent Activity in MINOTECH Buffers

L	M	H	SH	**A**	**K**
<10	<10	<10	<10	**100**	**100**

General reaction mixture:

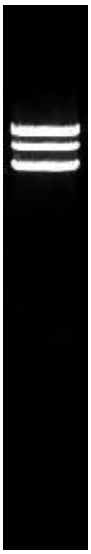
10U SmaI	1µl
10x A or K buffer *	2µl
DNA substrate	<1µg
Sterile ultrapure water	Up to 20 µl

Incubate for 15 min at 25°C

**In the case of A buffer we recommend the addition of BSA to a final concentration of 100 µg/ml.*

Frequency of Cutting

λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
3	12	0	1	1	0



Lambda DNA 0.7 % agarose

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