SgrBI (SacII)

5'…CCGC▼GG…3'
3'…GG▲CGCC…5'

Content:	Ref No.	250133S	color
	SgrBI 10 U/µL	1600 units	blue
	10x buffer U_{SgrBI}*	1x 1 mL	red
	10x buffer K	1x 1 mL	yellow
	Datasheet		

Lambda DNA SgrBI digest, 0.7 % agarose

We recommend the use of buffer K as universal buffer (BSA included).
Note: Particular sites in λ and φX174 DNAs are difficult to cleave with SgrBI, as well as with its prototype Sac II.

Storage: -20 °C

Concentration: 10 U/µL

Source: SgrBI is a restriction enzyme purified from *Streptomyces griseus*.

Enzyme Properties:

1x buffer U_{SgrBI} composition: 10 mM Tris-HCl (pH 7.9 at 25 °C), 10 mM $MgCl_2$, 1 mM Dithiothreitol, 0.1 % Triton X-100.

General reaction mixture:

10 U SgrBI	1 µL
10x buffer U_{SgrBI}* or K	2 µL
DNA substrate	<1 µg
Sterile ultrapure water	Up to 20 µL

Incubate for 15 min at 37 °C

Heat inactivation: 65 °C for 20 minutes.

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

Storage buffer: 10 mM Tris-HCl (pH 7.4), 50 mM NaCl, 0.1 mM EDTA, 1 mM Dithiothreitol, 200 µg/ml BSA and 50 % glycerol. Store at -20 °C.

Absence of contaminants: 400 units of SgrBI do not produce any unspecific cleavage products after 16 hrs incubation with 1 µg of Lambda DNA (HindIII digest) at 37 °C. After 100-fold overdigestion with SgrBI, greater than 98 % of the DNA fragments can be ligated and recut with this enzyme.

Unit definition: One unit is defined as the amount of enzyme required to produce a complete digest of 1 µg Lambda DNA in 60 minutes in a total reaction volume of 0.05 mL under assay conditions.

Frequency of Cutting:

λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
13	5	0	0	0	0

Percent Activity in BIORON Buffers:

L*	M*	H*	SH*	A*	K
75-100	75	50-75	25-50	<10	**100**

*we recommend the addition of BSA to a final concentration of 100 µg/mL.

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