

5'...CCC▼GGG...3'
 3'...GGG▲CCC...5'

Content:	Ref No.	250135S	color
Smal 10 U/μL		1100 units	blue
10x buffer A*		1x 1 mL	red
10x buffer K		1x 1 mL	yellow
Datasheet			



Lambda DNA Smal digest, 0.7 % agarose

We recommend the use of buffer K as universal buffer (BSA included).

Storage: -20 °C

Concentration: 10 U/μL

Source: Smal is a restriction enzyme purified from *Serratia marcescens* (ATCC 49779).

Enzyme Properties:

1x buffer A composition: 20 mM Tris-acetate (pH 7.9 at 25 °C), 50 mM potassium acetate, 10 mM magnesium acetate, 1 mM Dithiothreitol.

General reaction mixture:

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

Incubate for 15 min at 25 °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 KCl, 0.1 mM EDTA, 1 mM Dithiothreitol, 200 μg/ml BSA and 50 % glycerol. Store at -20 °C.

Absence of contaminants: 150 units of Smal do not produce any unspecific cleavage products after 16 hrs incubation with 1 μg of Lambda DNA (HindIII digest) at 25 °C. After 50-fold overdigestion with Smal, greater than 95 % 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
	3	12	0	1	1	0
Percent Activity in BIORON Buffers:	L*	M*	H*	SH*	A*	K
	<10	<10	<10	<10	100	100

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

BIORON GmbH – In den Rauheiden 20 - 67354 Römerberg (Germany)

Phone +49 6232 298 45 0 - Fax +49 6232 298 45 29
info@bioron.net www.bioron.net