

Important!

Includes new buffers!
Review instructions
before use.

***Sma* I**

Cat. no. 15228-018

Size: 1,000 Units

Store at -20°C

10X Buffer T: 1 mL

10X Loading Buffer: 1 mL

0.1% BSA: 1 mL

Cleavage Site:

5' -CCC↓GGG-3'

3' -GGG↑CCC-5'

Restriction Enzyme Reaction Mix

Sma I 1 μL

10X Buffer T 2 μL

0.1% BSA 2 μL

Substrate DNA ≤ 1 μg

Sterile water to 20 μL

Incubate at 30°C .

To use the loading buffer, add 1/10 volume of 10X Loading Buffer to an aliquot of the reaction mix, load on to an agarose gel, and analyze by electrophoresis.

Visit www.invitrogen.com/restrictionenzymes for details.

Intended Use

For research use only. Not intended for any animal or human therapeutic or diagnostic use.

Doc. no. MAN0001213

Rev. 21 Apr 2010

Note

- SDS in the loading buffer may precipitate during storage at room temperature. Warm the buffer to dissolve any SDS precipitate before use.
- This enzyme shows equivalent activity at 37°C compared to 30°C, but stability of enzyme in reaction mixture at 37°C is lower than that of at 30°C.

Source

Serratia marcescens Sb

Unit Definition

One unit is the amount of enzyme required to completely digest 1 µg of λDNA in 50 µL of the reaction mixture in 1 hour at 30°C.

Relative Activity in Universal Buffers

Buffer	L	M	H	K	T (+BSA)
Relative Activity (%)	<20	<20	<20	<20	100

Inactivation by Heat

Enzyme is inactivated by heating at 65°C for 20 minutes.

Effect of DNA Methylation

Enzyme is affected by CG methylase.

Buffer Compositions

10X Buffer T (BSA-free)

330 mM Tris acetate, pH 7.9
100 mM Magnesium acetate
5 mM Dithiothreitol (DTT)
660 mM Potassium acetate

Storage Buffer

10 mM Tris-HCl, pH 7.5
50 mM KCl
0.1 mM EDTA
1 mM Dithiothreitol (DTT)
0.01% BSA
50% (v/v) glycerol

Loading Buffer

1% SDS
50% glycerol
0.05% Bromophenol blue

Product Qualification

Certificate of Analysis is available from www.invitrogen.com/support. Search for the certificate of analysis by product lot number, which is printed on the box.

Related Products

Product	Quantity	Cat. no.
T4 DNA Ligase	250 units	15224-041
T4 Polynucleotide Kinase	1,000 U	18004-028
UltraPure™ Low Melting Point Agarose	100 g	16520-100
TrackIt™ 1 Kb Plus DNA Ladder	100 applications	10488-085
SYBR® Safe DNA Gel Stain (10,000X)	400 µL	S33102
E-Gel® EX Starter Kit, 1%	1 kit	G6511ST

Technical Support

For technical support, email tech_support@invitrogen.com or visit www.invitrogen.com

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