

**Important!**

Includes new buffers!  
Review instructions  
before use.

# **Sca I**

Cat. no. 15436-017

Size: 1,250 Units

Store at **-20°C**

10X Buffer H: 1 mL

10X Loading Buffer: 1 mL

Cleavage Site:

5' -AGT↓ACT-3'

3' -TCA TGT↑A-5'

## **Restriction Enzyme Reaction Mix**

*Sca* I 1 μL

10X Buffer H 2 μL

Substrate DNA ≤1 μg

Sterile water to 20 μL

**Incubate at 37°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](http://www.invitrogen.com/restrictionenzymes) for details.

## **Intended Use**

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

## Notes

- SDS in the loading buffer may precipitate during storage at room temperature. Warm the buffer to dissolve any SDS precipitate before use.
- Do not dilute this enzyme as it is unstable at low concentrations. Addition of BSA to a final concentration of 0.01% does not increase the relative activity at 37°C but increases the relative activity at 30°C and 25°C.

## Source

*Stremptomyces caespitosus*

## 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 37°C.

## Relative Activity in Universal Buffers

Buffer	L	M	H	K	T (+BSA)
Relative Activity (%)	<20*	<20*	100	60*	<20*

\*Weak star activity is detected.

## Inactivation by Heat

Enzyme is inactivated by heating at 80°C for 20 minutes.

## Effect of DNA Methylation

Enzyme activity is unaffected by DNA methylation.

## **Buffer Compositions**

### **10X Buffer H**

500 mM Tris-HCl, pH 7.5

100 mM MgCl<sub>2</sub>

10 mM Dithiothreitol (DTT)

1000 mM NaCl

### **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

### **Star Activity**

Unrelated site may be cut in the presence of Mn<sup>2+</sup>, and at alkaline pH or low ionic strength.

### **Product Qualification**

Certificate of Analysis is available from

[www.invitrogen.com/support](http://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](mailto:tech_support@invitrogen.com) or visit [www.invitrogen.com](http://www.invitrogen.com)

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