

## Product Information

### **Sal I** from *Streptomyces albus* G

Catalog Number **R0754**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

CAS RN 81295-38-7  
EC 3.1.21.4  
Synonym: Restriction Endonuclease *Sal* I

#### **Product Description**

*Sal* I recognizes the sequence G/TCGAC and generates fragments with 5'-cohesive termini.<sup>1</sup> *Sal* I generates compatible ends to *Xho* I. *Sal* I is inhibited by the presence of 5-methylcytosine at GT<sup>m</sup>CGAC and N<sup>6</sup>-methyladenine at GTCG<sup>m</sup>AC. *Sal* I exhibits star activity under non-optimal conditions.

100 units of *Sal* I can be heat inactivated after 15 minutes at  $65\text{ }^{\circ}\text{C}$ .

*Sal* I Storage and Dilution Buffer: 10 mM Tris-HCl, 1.0 mM EDTA, 10 mM dithioerythritol, and 50% (v/v) glycerol, pH 7.5

Activity: 10,000 units/ml  
Cutting: 100%

Unit Definition: One unit is the enzyme activity that completely cleaves 1  $\mu\text{g}$   $\lambda$  DNA in 1 hr. at  $37\text{ }^{\circ}\text{C}$  in a total volume of 25  $\mu\text{l}$  of Buffer SH for restriction enzymes. 1  $\mu\text{g}$  pBR322 DNA is digested completely by 5 units of *Sal* I on account of the larger number of cleavage sites per  $\mu\text{g}$  of pBR322 DNA as compared to  $\lambda$ DNA. For cleavage of genomic DNA embedded in agarose, 10 units of *Sal* I per  $\mu\text{g}$  of DNA incubated for 4 hrs. at  $37\text{ }^{\circ}\text{C}$  is recommended.

Digestion Buffer SH (B3657) is supplied as a 10 $\times$  concentrate. Composition of 1 $\times$  Digestion Buffer SH for *Sal* I – 100% Digestion at  $37\text{ }^{\circ}\text{C}$ : 50 mM Tris-HCl, 100 mM NaCl, 10 mM  $\text{MgCl}_2$ , and 1 mM dithioerythritol, pH 7.5

Non-specific endonuclease activity: No degradation detected with  $>40$  units for 16 hours. 1  $\mu\text{g}$  of  $\lambda$ DNA is incubated for 16 hours in 50  $\mu\text{l}$  of 1 $\times$  Digestion Buffer SH with excess of *Sal* I.

Fold over digestion: 640 (40 units  $\times$  16 hrs.)

#### **Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### **References**

1. Arrand, J.R. et al., A new restriction endonuclease from *Streptomyces albus* G. J. Mol. Biol., **118**, 127-135 (1978)

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