

Recombinant Deoxyribonuclease I from Bovine, RNase-free

Cat. No. COV-007

Lot. No. (See product label)

Introduction

Description DNase I (deoxyribonuclease I, RNase-free) is derived from a recombinant E. coli strain carrying Bovine Pancreatic DNase I. It is an endonuclease that nonspecifically cleaves DNA to release di- and oligonucleotide products with 5' phosphorylated and 3'-hydroxylated ends. This enzyme was originally isolated from bovine pancreas, and the mammalian pancreas is one of the dominating sources until this day. DNase I acts on various DNAs such as single and double-stranded DNA, RNA: DNA hybrids, and chromatin (the cleavage rate is affected by histones).

Applications Degradation of DNA template in transcription reactions. Removal of contaminating genomic DNA from RNA samples. DNase I footprinting: Used for footprinting analysis of DNA-protein interactions. Nick Translation: Used in conjunction with DNA Polymerase I for nick translation.

Product Information

Species Bovine Pancreatic

Source E. coli

Form Liquid

EC Number EC 3.1.21.1

CAS No. 9003-98-9

Purity > 95% (SDS-PAGE)

Buffer 2 mM CaCl₂, 10 mM Tris-HCl (pH 7.6, 25°C), 50% glycerol.

Unit Definition One unit is defined as the amount of enzyme which will completely degrade 1 µg of pBR322 DNA in a total reaction volume of 50 µl in 10 minutes at 37°C. Complete degradation is defined as the reduction of the majority of DNA fragments to tetranucleotides or smaller.

Storage and Shipping Information

Storage at -20 °C (Avoid repeated freeze-thaw cycles)