

DNase I (RNase-free)

(Catalogue number D061)

rev. 04/2025

Description

DNase I (RNase-free) is a preparation of deoxyribonuclease I that degrades single-stranded or double-stranded DNA to produce 3'-hydroxyl oligonucleotides. This preparation is qualified for use in applications where maintaining the integrity of RNA is critical. DNase I (RNase-free) is used for removal of DNA from RNA preparation (e.g. in RT PCR procedures and differential display libraries), DNase "footprinting", mapping of DNase sensitive regions, plasmid constructions, radioactive labeling using nick translations and other applications.

Technical data

Enzyme concentration

- DNase I, RNase-free is supplied at a concentration 10 000 U/ml.

Components and packaging

- 1 test tube with DNase I (RNase-free), 5 000 U/500 µl.
- 1 test tube with 5x concentrated react buffer, 1 ml.

Unit definition

- One unit DNase I (RNase-free) is defined as amount of the enzyme, which degrades 1 µg of DNA in 10 min at 37°C in 20 µl of react buffer: 20 mM Tris-HCl, pH 7.6, 20 mM NaCl, 12 mM MgCl₂ and 4 mM CaCl₂.

Storage

- At temperature -20°C ± 5°C. Material can be repeatedly defrosted.

Composition

- React buffer (5x): 100 mM Tris-HCl (pH 7.6 at 20°C), 100 mM NaCl, 60 mM MgCl₂, 20 mM CaCl₂.
- Storage buffer: 10 mM Tris-HCl (pH 7.6 at 20°C), 10 mM NaCl, 6 mM MgCl₂, 2 mM CaCl₂, 50% (vol/vol) glycerol.

Quality control

- Under conditions completely degrading DNA, the enzyme has no effect on RNA.

Cat. No.	Product name and specification	Amount
D061	DNase I (RNase-free)	5000 U/0.5 ml

