

## rDNase Set

## 1 Contents

rDNase Set	
	<b>50 mini preps</b>
<b>Cat. No.</b>	<b>740963</b>
rDNase, RNase free (lyophilized)	1 vial (size D)
Reaction Buffer for rDNase	7 ml

## 2 Product description

The rDNase Set is intended for use with NucleoSpin® RNA Kits. Furthermore, the rDNase Set is suitable for digestion of contaminating DNA within prepurified RNA preparations (e.g. phenol based RNA preparations), i.e. for DNA digestion in solution. The optimized Reaction Buffer for rDNase is highly recommended for best DNase performance.

The amount of rDNase and Reaction Buffer for rDNase is sufficient for on-column DNA digestion of

- 50 preps NucleoSpin® RNA II or
- 160 preps NucleoSpin® RNS XS or
- 20 preps NucleoSpin® RNA L or
- 1 x 96 preps NucleoSpin® 96 RNA or
- 50 preps NucleoSpin® RNA/Protein or
- 50 preps NucleoSpin® RNA Plant or
- 50 preps NucleoSpin® RNA Clean-up or
- 160 preps NucleoSpin® RNA Clean-up XS or

in solution digestion of

- 50 x 1 ml crude RNA

For appropriate use of the rDNase and the Reaction Buffer for rDNase with above mentioned NucleoSpin® kits please refer to the individual protocols for detailed information. For DNA digestion in solution, see section 6.

## 3 rDNase specification

**Source:** The rDNase is DNase I from bovine pancreas, recombinantly produced in *Pichia pastoris* without using any animal cells or other material derived from animals.

**RNase activity:** Not detectable.  
RNase activity was tested using a cleavable fluorescent labeled RNase substrate. No RNase activity was detectable after one hour incubation time.

**RNA integrity:** Measurements with the Agilent 2100 Bioanalyzer show, that RNA integrity is untouched by the treatment with MACHERY-NAGEL rDNase.

## 4 Storage conditions and preparation of working solution

rDNase, RNase-free: Store lyophilised rDNase at +4°C on arrival (stable for up to one year).

Reconstitution of lyophilized rDNase: Before first use of the kit, add indicated volume of RNase-free H<sub>2</sub>O (see below) to the rDNase vial and incubate for 1 min at room temperature. Gently swirl the vial to completely dissolve the rDNase. Be careful not to mix rDNase vigorously. rDNase is sensitive to mechanical agitation.

Dispense into aliquots and store at –18°C. The frozen working solution is stable for 6 months. Do not freeze/thaw the aliquots more than three times.

rDNase Set	
<b>Cat. No.</b>	<b>740963</b>
rDNase, RNase free (lyophilized)	1 vial (size D) add 540 µl RNase-free H <sub>2</sub> O

## 5 Safety instructions – risk and safety phrases

*rDNase contains hazardous contents. Wear gloves and goggles!*

Component	Hazard Contents	Hazard Symbol	Risk Phrases	Safety Phrases
rDNase	rDNase, lyophilized	 Xi*	R 42/43	S 22-24

### Risk Phrases

R 42/43 May cause sensitization by inhalation and skin contact

### Safety Phrases

S 22 Do not breathe dust

S 24 Avoid contact with skin

\* Label not necessary, if quantity below 125 g or ml (according to 67/548/EEC Art. 25, 1999/45/EC Art. 12 and German GefStoffV § 42 an TRGS 200 7.1)

## 6 Protocol for DNA digestion in solution

Several commonly used RNA purification methods co-purify DNA to a considerable extent (e.g. phenol based RNA purification). This often requires a subsequent removal of contaminating DNA and clean-up of the RNA from the reaction mixture.

DNA digestion in solution can efficiently destroy contaminating DNA. Subsequent repurification of the RNA (in order to remove buffer, salts, DNase, and digested DNA) is usually required.

The rDNase Set, containing high quality, recombinant RNase-free DNase (rDNase) and reaction buffer facilitates such a digestion in solution in order to remove even traces of contaminating DNA.

### A Digest DNA (Reaction Setup)

Prepare enzyme-buffer premix: Add **1 µl reconstituted rDNase** to **10 µl Reaction Buffer for rDNase**.

Add 1/10 volume of the enzyme-buffer premix to the crude\* RNA solution (e.g. to 10 µl RNA add 1 µl of the premix comprising buffer and enzyme).

*\*Note: The crude RNA solution should be of low RNase activity, otherwise the RNA quality may be affected during incubation.*

### B Incubation

Incubate for 10 min at 37°C.

### C Repurification of RNA

Repurify RNA according to a suitable cleanup procedure, e.g. with the NucleoSpin® RNA Clean-up XS (Cat. No. 740902).

## 7 Service Bioanalysis

Technical support and customer service

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