

# NucleoSpin® RNA

## 1 Kit contents

NucleoSpin® RNA		
REF	12 preps 740955.12c	240 preps 740955.240c
Lysis Buffer RA1	10 mL	250 mL
Buffer RA3 (Concentrate)	6 mL (add 24 mL ethanol before first use)	100 mL (add 400 mL ethanol before first use)
Membrane Desalting Buffer MDB	25 mL	250 mL
Reaction Buffer for rDNase	7 mL	30 mL
rDNase, RNase-free (lyophilized)	1 vial (size D) (add 130 µL RNase-free H <sub>2</sub> O for reconstitution)	5 vials (size F) (add 550 µL RNase-free H <sub>2</sub> O for reconstitution to each vial)
RNase-free H <sub>2</sub> O	13 mL	125 mL
NucleoSpin® Filters (violet rings)	12	240
NucleoSpin® RNA Columns (light blue rings – plus Collection Tubes)	12	240
User manual	1	1

## 2 How to use the kit

Refer to the protocol information on the following pages for technical details on using the kit. For further questions or detailed instructions, particularly regarding the use of the kit with specific robotic instruments, please contact MACHEREY-NAGEL at [support@mn-net.com](mailto:support@mn-net.com).

For storage conditions, product use restrictions, and safety information, please see the general NucleoSpin® RNA user manual.

### NucleoSpin® kits on QIAcube®

MN is not recommending to use this kit on specific robots. The use of NucleoSpin® kits on the QIAcube® is solely at your own discretion. MACHEREY-NAGEL is not responsible for loss of warranty claims or other consequences.

### 3 General information

Application:	RNA
Kit:	NucleoSpin® RNA (REF 740955.240c) instead of: RNeasy® Mini Kit
Sample material:	Animal cells cultured cells
Protocol name:	Purification of total RNA from animal cells RNA_RNeasyMini_AnimalCells_QIAshredderDNaseDigest_V1
Editable parameters:	QIAshredder DNase digest

### 4 Using the kit

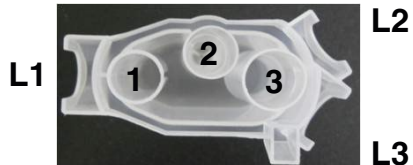
- Fill the designated buffer bottles with the buffers according to buffer table on page 3.
- Sample homogenization in a 2 mL Sample Tube.  
*Disrupt  $5 \times 10^6$ – $1 \times 10^7$  cells in 600  $\mu$ L Buffer RA1 containing 6  $\mu$ L  $\beta$ -mercaptoethanol or 12  $\mu$ L of a 1 M TCEP stock solution (thaw cells before starting).*
- Place sample tubes into sample rack.
- Fill required volume of rDNase reaction mix into a 2 mL Safe-Lock microcentrifuge tube.
- Place rDNase reaction mix in position A of the Microcentrifuge Tube Slots.
- Insert disposable Filter Tips 1000  $\mu$ L and 1000  $\mu$ L wide-bore.
- General equipment setup is shown on page 3.

### 5 Additional materials

Refer to the QIAcube® protocol sheet for required consumables (e.g., sample tubes, collection tubes, instrument accessories, disposable tips, etc.) and software requirements.

### 6 Rotor adapter

Position	Labware	Lid position
1	NucleoSpin® RNA Column	L1
2	NucleoSpin® Filters (no lid, violet ring)	–
3	1.5 mL collection tube*	L3



\* Sarstedt, Micro tube 1.5 mL Safety Cap

## 7 Buffers (Reagent Bottle Rack)

Position	MN Reagent	Replaced QIAGEN® Reagent
1	–	–
2	70 % ethanol	70 % ethanol
3	–	–
4	Buffer MDB	Buffer RW1
5	Buffer RA3	Buffer RPE
6	RNase-free H <sub>2</sub> O	RNase-free water

## 8 Microcentrifuge Tube Slots

	Position A	Position B	Position C
Content:	rDNase reaction mix	–	–
Tube:	2 mL Safe-Lock microcentrifuge tube	–	–

## 9 Required volume of rDNase reaction mix in Microcentrifuge Tube Slots

No. of samples	rDNase reaction mix (Microcentrifuge Tube Slot A)
2	213 µL (21 µL DNase + 192 µL DNase Reaction Buffer)
3	300 µL (32 µL DNase + 268 µL DNase Reaction Buffer)
4	386 µL (43 µL DNase + 343 µL DNase Reaction Buffer)
5	472 µL (54 µL DNase + 418 µL DNase Reaction Buffer)
6	559 µL (65 µL DNase + 494 µL DNase Reaction Buffer)
7	645 µL (76 µL DNase + 569 µL DNase Reaction Buffer)
8	731 µL (86 µL DNase + 645 µL DNase Reaction Buffer)
9	818 µL (97 µL DNase + 721 µL DNase Reaction Buffer)
10	904 µL (108 µL DNase + 796 µL DNase Reaction Buffer)
12	1077 µL (130 µL DNase + 947 µL DNase Reaction Buffer)

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