RNeasy® 96 QIAcube® HT Total RNA Tissue with DNase Digestion Protocol

For use with RNeasy 96 QIAcube HT Kit and QIAcube HT Plasticware

This protocol is intended for the automated purification of RNA from tissue, including DNase digestion, using the QIAcube HT instrument. The procedure yields high-quality RNA that performs well in RT-PCR and other downstream reactions. The RNeasy 96 QIAcube HT Kit combines the selective binding properties of a silica-based membrane with a high-throughput 96-well format, and is designed for fully automated, simultaneous processing of 24–96 samples on the QIAcube HT instrument. This protocol also requires QIAzol® Lysis Reagent (cat. no. 79306), Collection Microtubes (cat. no. 19560), and Collection Microtube Caps (cat. no. 19566).

Q Protocol description:

- Run file: RNeasy 96 QIAcube HT total RNA Tissue with DNase V1.qsp
- Purification of RNA using silica technology
- Automated processing using vacuum filtration for bind, wash, and elute steps

Protocol specifications

Specification	Description
Number of samples	24–96 samples (to be processed in increments of 8)
Sample input volume	$350~\mu l$ aqueous phase from up to 40 mg frozen or 20 mg stabilized tissue homogenized in $750~\mu l$ QIAzol Lysis Reagent
Elution volume	110 pl
Duration	96 samples in approximately 93 minutes 24 samples in approximately 54 minutes Each additional 8 samples extend the processing time by 5 minutes



Worktable setup

For detailed protocol and worktable setup information, see the pre-run report and the RNeasy 96 QIAcube HT Handbook.

Reagents

Note: Each Reagent Trough must be loaded on the worktable in a Reagent Trough Adapter.

Reagent	Plasticware	Worktable position
Wash Buffer RWT	Reagent Trough 170 ml	R1
Wash Buffer RPE	Reagent Trough 170 ml	R1
Binding reagent (70% Ethanol)	Reagent Trough 70 ml	R1
DNase mix	Reagent Trough 70 ml	C1
Elution reagent (RNase-free water)	Reagent Trough 70 ml	C1
TopElute Fluid	Reagent Trough 70 ml	C1

Consumables

Consumables	Worktable position
Filter-Tips, OnCor C, 200 µl	B2 and C2 (2 x tip racks)
RNeasy 96 well plate	A1 (waste (left) compartment of vacuum chamber)
Elution Microtubes RS	A1 (elution (right) compartment of vacuum chamber)

Samples

Samples	Worktable position
S-Block, 96-Well	B1

Ordering Information

Product	Contents	Cat. no.
RNeasy 96 QIAcube HT Kit (5)	For 480 preps: RNeasy plates, RNase-free water, buffers	74171
RNase-Free DNase Set (50)	1500 Kunitz units RNase-free DNase I, RNase-free Buffer RDD, and RNase-free water for 50 RNA minipreps	79254
QIAcube HT Plasticware	For 480 preps: 5 S-Blocks, 5 EMTR RS, 2 x 50 Caps for EMTR, 9 x 96 Filter-Tips OnCor C, TapePad	950067
Elution Microtubes RS	24 x 96 Elution Microtubes, racks of 96; includes cap strips	120008
S-Blocks	24 x 96-well blocks with 2.2 ml wells	19585
QIAzol Lysis Reagent	200 ml QIAzol Lysis Reagent	79306
TissueLyser		
TissueLyser II	Bead mill, $100-120/220-240 \text{ V}$, $50/60 \text{ Hz}$; requires the TissueLyser Adapter Set, 2×24 or TissueLyser Adapter Set 2×96 (available separately)*	85300
TissueLyser Adapter Set 2 x 24	2 sets of adapter plates and 2 racks for use with 2 ml microcentrifuge tubes on the TissueLyser II	69982
TissueLyser Adapter Set 2 x 96	2 sets of adapter plates for use with Collection Microtubes (racked) on the TissueLyser II	69984
TissueLyser LT	Compact bead mill, 100-240 V AC, 50–60 Hz; requires the TissueLyser LT Adapter, 12-Tube (available separately) [†]	85600
TissueLyser LT Adapter, 12-Tube	Adapter for disruption of up to 12 samples in 2 ml microcentrifuge tubes on the TissueLyser LT	69980
Stainless Steel Beads, 5 mm (200)	200 stainless steel beads (5 mm diameter), suitable for use with TissueLyser systems	69989
Collection Microtubes (racked, 10 x 96)	Nonsterile polypropylene tubes (1.2 ml), 960 in racks of 96	19560
Collection Microtube Caps (120 x 8)	Nonsterile polypropylene caps for collection microtubes (1.2 ml) and round-well blocks, 960 in strips of 8	19566

 $^{^{\}circ}$ The Tissuelyser II must be used in combination with the Tissuelyser Adapter Set 2 x 24 or Tissuelyser Adapter Set 2 x 96. † The Tissuelyser LT must be used in combination with the Tissuelyser LT Adapter, 12-Tube.

QIAcube HT instrument

QIAcube HT system Robotic workstation with UV lamp, HEPA filter, laptop,

QIAcube HT operating software, start-up pack, installation

and training, 1-year warranty on parts and labor

Accessories Pack, QXT Upgrade kit for QIAxtractor® instrument; adapter set to use

dedicated QIAcube HT kits on the QIAxtractor

Contains: Transfer Carriage (9022654), Riser Block EMTR

(9022655), and Channeling Adapter (9022656)

9001793

9022649

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

For a complete list of accessories, visit www.giagen.com/p/QIAcubeHT.

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