

High-Q™ Spin Column Cultured Cell RNA Purification Kit

Ordering info

TBK0261, 3 reactions (sample)

TBK0262, 50 reactions

TBK0263, 100 reactions

Description

High-Q™ Spin-Column Cultured Cells RNA Purification

Kit is an easy silica-membrane-based system for RNA purification from cultured cells. An optimized lysis buffer guarantees a good yield while the use of High-Q™ RNA Spin Columns allow a good quality RNA, suitable for downstream applications.

Features

- **Safe** (no phenol extraction, no ethanol precipitation), simple and rapid (15-30 minutes).
- **High yield and purity**, 10-50 µg RNA with A260/A280 ~2.0; A260/A230 ~2.0-2.2.
- Isolated RNA is ready to use for downstream molecular biology applications.
- **Easy and fast protocol.**

Applications

- Purification of RNA from cultured cells.
- RNA obtained is suitable for downstream molecular biology applications such as RT-PCR, RT-qPCR, Northern, cDNA library, nuclease protection assay, *in vitro* translation, etc.

Quality Control

RNA purified is checked by: integrity (agarose gel electrophoresis), quantity and quality (A260/280 ~2.0).

Kit Components

Components	TBK0262	TBK0263
High-Q™ RNA Spin Column	50	100
Collection Tubes	50	100
BCRNA-1 Buffer	25 mL ^a	50 mL ^a
DNase I (5 U/µL)	250 µL	500 µL
10x DNase-I Buffer	2 x 1.5 mL	10 mL
WRNA-1 Buffer	20 mL ^b	35 mL ^c
WRNA-2 Buffer	12 mL ^d	25 mL ^e
Water, nuclease free	5 mL	10 mL

Order Info Kit Components: High-Q™ RNA Spin Columns (TBM0012) | Collection tubes (TBM0020) | BCRNA-1 Buffer (TBB0552) | DNase-I (TBZ0320) | 10x DNase Buffer (TBB0319) | WRNA-1 Buffer (TBB0544) | WRNA-2 Buffer (TBB0545) | Water, nuclease free (TBB0302).

Components for samples are ready to use!

Before its use:

- ^a Add 10 µL β-mercaptoethanol per 1 mL BCRNA-1 Buffer.
- ^b Add 12 mL absolute ethanol and mix well.
- ^c Add 21 mL absolute ethanol and mix well
- ^d Add 48 mL absolute ethanol and mix well.
- ^e Add 100 mL absolute ethanol and mix well.

Storage

Store the kit at 25 °C and DNase-I at -20 °C.

Material required (not supplied)

- 1.5 mL Microcentrifuge tubes (RNase free).
- Ethanol 70%.
- β-mercaptoethanol (βME) (CAS 60-24-2).
- PBS 1x, pH=7.4.

PROTOCOL

- Harvest the cells ($1 \times 10^6 - 1 \times 10^7$ cells) and resuspend them in **400 μ L BCRNA-1 Buffer** (✓) and mix thoroughly by vortex for 30 seconds.
 - ✓ Check β -mercaptoethanol has been added. All cells must be mixed with the buffer.
- Add **400 μ L ethanol 70%**. Mix by inversion.
- Transfer up 750 μ L mixture to a High-Q™ RNA Spin Column placed into a Collection Tube.
- Centrifuge at 10,000 x g for 1 minute. Remove the flow-through and place back the High-Q™ RNA Spin Column into a Collection Tube. If necessary, repeat steps 3 and 4 with the remaining mixture.
- Centrifuge at 10,000 x g for 1 minute to dry the column matrix.
- [Optional]** Add **50 μ L DNase Mixture** in the center of High-Q™ RNA Spin Column.
 - DNase Mixture:** Mix with a pipette 5 μ L DNase-I + 45 μ L 10x DNase-I Buffer. Avoid vortex.
- Incubate for 10 minutes at room temperature (15-25 °C).
- Add **500 μ L WRNA-1 Buffer** (✓) and centrifuge at 10,000 x g for 30 seconds. Discard the flow-through and place the High-Q™ RNA Spin Column back into the Collection Tube.
 - ✓ Check Ethanol has been added.
- Add **500 μ L WRNA-2 Buffer** (✓).
 - ✓ Check Ethanol has been added.
- Centrifuge at 10,000 x g for 30 seconds. Discard flow-through. Place High-Q™ RNA Spin Column back in the Collection Tube and repeat step 11.
- To dry silica matrix, centrifuge at 10,000 x g for 1 minute.
- Place High-Q™ RNA spin column into a clean 1.5 mL microcentrifuge tube.
- Carefully and without touching the matrix, add in the center of High-Q™ RNA Spin Column, **50-100 μ L Water** (nuclease free) prewarmed at 65 °C.
- Incubate at room temperature for 1-2 minutes.
- Centrifuge for 1 minute at 13,000 x g. RNA isolated is in the eluate. Discard High-Q™ RNA Spin Column.
- Store at -80°C.

