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Product information

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Rapid Blood RNA Isolation Kit

Catalog #: BT4182 | BT4183 | BT4184
Size: 10 preps | 50 preps | 250 preps
Storage: 4°C (for 1 year)

Product Description:

This kit is designed for preparation of high quality total RNA from any anticoagulated blood. 20µg total RNA can be purified from 1ml anticoagulated blood using this kit. Purified RNA is ready for most downstream applications such as T-PCR, Northern Blotting, Poly (A) purification, nuclease protection and in vitro translation.

Contents:

Description	BT4182 10 preps	BT4183 50 preps	BT4184 250 preps
Buffer Rlysis-R	3 ml	12 ml	60 ml
Buffer NS-A	4.5 ml	22.5 ml	108 ml
2% SDS Solution	0.5 ml	2.5 ml	12 ml
RNase-free Water	6 ml	30 ml	150 ml
Protocol	1	1	1

User must supply:

- Microcentrifuge capable of at least 12,000 × g.
- RNase-Free pipets and pipet tips.
- Vortexer.
- RNase-Free Ethanol (96-100%).
- RNase-Free Microcentrifuge tubes (1.5 ml or 2 ml).

Features:

- Fast: The entire procedure can be completed in 40 minute.
- Simple: Red Blood Cell Lysis Buffer is not required.
- Easy to scale up.
- Economic.

NOTE: Care must be taken when working with RNA. It is important to maintain an RNase-free environment starting with RNA sample preparation and continue through purification and analysis. Use RNAse free tubes, tips, gels. Wear gloves at all times.

Protocol:

1. Transfer 0.2-0.4 ml fresh anticoagulated whole blood to a 1.5 ml RNase-free centrifuge tube. Add 0.5 ml RNase-free Water and mix by inverting the tube a few times.

2. Centrifuge at 8,000 x g for 1 minute at room temperature, discard the supernatant.

3. Using RNase-free pipette tip, add 200 µl Buffer Rlysis-R and mix by inverting the tube gently a few times.

4. Incubate at room temperature for 5 minutes to make sure the cells are completely lysed.

5. Briefly spin to bring down solutions (2-5 sec). Add 360 µl Buffer NS-A, add 40ul of 2% SDS Solution and mix by inverting the tube gently.

Note: There may be precipitates after addition of SDS. Proceed to step 6 as precipitates will not affect performance of the kit.

6. Centrifuge at 12,000 x g for 5 minutes at 4°C. Transfer the supernatant to a new RNase-free 1.5 ml tube.

7. Add 1/3 volume of ethanol, mix by inverting the tube.

Note: Incubating at -20°C for 5-10 minutes can improve the RNA yield.

8. Centrifuge at 12,000 x g for 5 minutes at 4°C, discard the supernatant carefully.

9. Add 1 ml of RNase-free 75% ethanol to the tube, mix well by inverting 10 times. Centrifuge at 12,000 x g for 1 minute, discard the supernatant.

10. Repeat the Step 9 once.

11. Air-dry the pellet at room temperature with the lid open for 2~5 minutes.

Note 1: This step is very important, residual ethanol in RNA will interfere with some downstream applications.
Note 2: Don't over dry.

12. Add 30~50 µl of RNase-free Water to dissolve RNA pellet. Purified RNA is ready for use. For long term storage, store at -70°C.