

## INTENDED USE

RNAgard Blood Reagent is intended for the preservation and storage of cellular RNA in whole blood for up to 14 days at room temperature. **For Research Use Only. Not for Use In Diagnostic Procedures.**

## SUMMARY AND PRINCIPLES

RNAgard® Blood Reagent is designed for the immediate preservation of cellular RNA in either human or animal blood samples at room temperature until purification and downstream analysis can be completed. High yields of high quality RNA with unaltered gene expression are obtained for use in a wide range of downstream molecular diagnostic applications.

## REAGENT

RNAgard Blood Reagent consists of 100mL of a proprietary reagent to be mixed with freshly drawn whole blood for cellular RNA stabilization.

## PRECAUTIONS

1. For Research Use Only. Not for Use In Diagnostic Procedures.
2. Practice Universal Precautions when handling this product.
3. Avoid skin contact with RNAgard Blood Reagent.
4. Do not use after expiration date printed on bottle.

## CAUTION

Contents of this reagent may cause irritation to eyes, respiratory system and skin.

1. If accidental inhalation occurs, supply fresh air and seek medical advice in case of complaints.
2. In case of skin contact, immediately wash with water and soap and rinse thoroughly.
3. In case of eye contact, rinse immediately with plenty of water for at least 15 minutes and seek medical advice.
4. If accidental swallowing occurs, immediately seek medical advice.
5. Refer to SDS in case of accidental ingestion or skin contact. All SDS information is available at [http://biomatrica.com/support\\_sds.php](http://biomatrica.com/support_sds.php).

## STORAGE & STABILITY

Prior to mixing RNAgard reagent with blood:

1. Store RNAgard Blood Reagent between 4°C and 25°C until the end of shelf life marked by the expiration date.
2. Immediately close the cap of the reagent bottle when not in use.

Following mixing RNAgard reagent with blood:

1. Store at room temperature (18-25°C) for up to 14 days.
2. Store at 2-8°C for up to 1 month.
3. For longer storage periods see Procedure for Freezing & Thawing Specimens.

## INSTRUCTIONS FOR USE

### A. Procedure for Mixing RNAgard Blood Reagent with Blood Specimen.

1. Add whole blood to a tube pre-aliquoted with RNAgard Blood Reagent making a final ratio of 1:2.5 (blood volume to reagent volume). The final volume of the blood-reagent mixture should not exceed 2/3 of the fill capacity of the tube.

*Notes: Tubes that can be used in this procedure include: VACUETTE® blood collection tubes, microfuge tubes, and larger tubes (e.g. Falcon™ tubes).*

2. Immediately mix by gently inverting at least 5 times.



3. Refer to Storage and Stability for storage following mixing.

### B. Procedure for Freezing and Thawing Specimens Preserved in RNAgard Blood Reagent

#### Freezing

1. Store the blood-reagent mixture at room temperature for at least 2 hours before storing at lower temperatures.
2. For storage below -20°C, transfer specimens to cryovials, freeze them first at -20°C for 24 hours and then transfer to -70°C or -80°C.

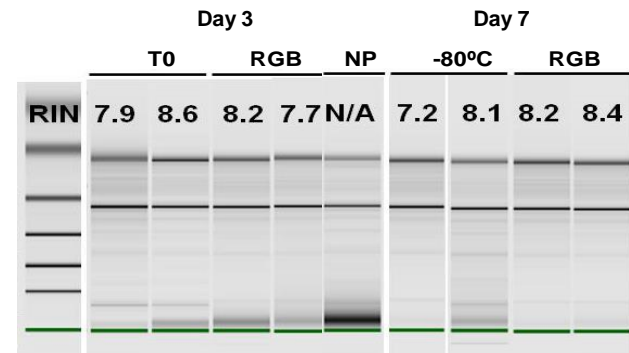
#### Thawing

1. Thaw specimens preserved in RNAgard Blood Reagent at room temperature (18-25°C) for at least 2 hours. Longer equilibration to room temperature before proceeding to RNA purification generally results in higher RNA yields.
2. Gently invert the thawed tubes five times.

## C. Procedure for Specimen Processing for Analysis

1. Allow at least 2 hours after the addition of RNAgard Blood Reagent to your blood sample to start the purification process.
2. In order to maximize RNA yield, allow 8-12 hours of storage at room temperature prior to RNA purification, as longer incubation times generally result in increased RNA yields.
3. It is recommended that RNA purification be performed using the RNAgard® Blood RNA Purification Kit (Cat. No. 64201-601). Other commercially available RNA purification systems are also compatible with the RNAgard Blood Reagent using the RNAgard® Blood Precipitation Buffer, sold separately (Cat. No. RP1-001-FG). For precipitation and purification procedures, please reference the Resources tab at [www.biomatrica.com/rnagardblood\\_tube.php](http://www.biomatrica.com/rnagardblood_tube.php).

## EXPECTED RESULTS



Analysis of RNA quality in blood samples stored at various conditions using the Agilent 2100 Bioanalyzer. Gel image shows the integrity of RNA purified at day 3 and day 7. The samples include fresh samples (T0), samples collected in RNAgard Blood Tubes, samples stored at -80°C (-80°C), and non-protected samples at room temperature (NP). Numbers above each lane represent RNA Integrity Number (RIN).

## LIMITATIONS

RNAgard Blood Reagent is intended for the preservation of cellular RNA from whole blood for Research Use Only applications. It is not intended for the purification of genomic DNA or viral nucleic acids from human whole blood.

## ORDERING INFORMATION

Orders may be placed online at [www.biomatrica.com](http://www.biomatrica.com), via email at [orders@biomatrica.com](mailto:orders@biomatrica.com), or through Biomatrixa Customer Support at 1-866-379-6879 (Toll Free in USA and Canada) or 1-858-550-0308.

## GLOSSARY OF HARMONIZED SYMBOLS

|                         |                   |                              |                                       |
|-------------------------|-------------------|------------------------------|---------------------------------------|
| REF<br>Catalog Number   | LOT<br>Batch Code | Hazard                       | Use By                                |
| Keep away from sunlight | Manufacturer      | Consult Instructions for Use | 25°C<br>4°C<br>Temperature Limitation |

Glossary of symbols may contain symbols not used in the labeling of this product.

## **RNAgard<sup>®</sup> Blood Reagent IFU Directions**

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Instructions for use can be obtained via the internet at [http://biomatrica.com/rnagardblood\\_tube.php](http://biomatrica.com/rnagardblood_tube.php) or by calling the following phone numbers: 1-866-379-6879 (Toll Free in USA and Canada) or 1-858-550-0308.