

GenTegra RNAssure™

Part No: GTR50-LQ

Overview

GenTegra RNAssure incorporates GenTegra's Active Chemical Protection™ technology to stabilize RNA for at least 3 days at room temperature. RNAssure protects RNA during normal experimental handling where the sample temperature can often rise above 0 °C. Even brief exposure to elevated temperature is detrimental to RNA integrity, especially with prevalent contamination from endogenous or environmental RNases. Samples stabilized with RNAssure can be used directly in downstream applications without further purification. RNAssure does not inhibit NGS library preparation, RT-PCR, or other expression profiling techniques. GenTegra RNAssure is available in standard 1.5 mL elution tubes (**Part No. GTR50-LQ**), as well as, 96-well plates (**Part No. GTR96-LQ**) ideal for automation. (For more information on various formats of GenTegra RNAssure, contact info@syntezza.com)

Product Specifications

- GenTegra RNAssure is available in 1.5 mL elution tubes
- Stabilizes RNA for up to 3 days at room temperature, 15 - 25°C
- Compatible with purified RNA from cell lines, whole blood, frozen tissues, and FFPE tissues
- Compatible with RNA purified using standard protocols and kits from all major suppliers (e.g., Invitrogen, Zymo, and QIAGEN)
- Compatible with all common storage buffers, including nuclease-free water, TE, and Tris buffers
- Recover in a volume of 20 – 150 µL of elution buffer

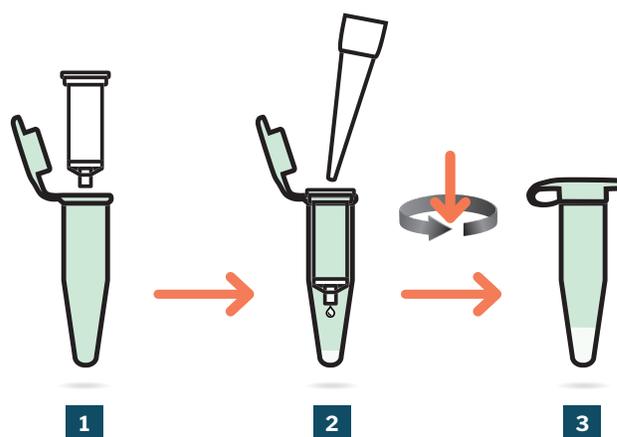
RNAssure Quick Reference Workflow

Follow standard protocol provided by RNA extraction kit manufacturer. Prior to the elution step use the RNAssure Elution Tube to replace the kit manufacturer's collection/elution/recovery tube.

Step 1: For the final elution step, insert the column into GenTegra RNAssure elution tube.

Step 2: Add between 20 – 150 µL elution buffer to the spin column and centrifuge to elute RNA. Briefly mix the eluted RNA by tapping the tubes or vortexing.

Step 3: Purified RNA is ready to be used at room temperature or on ice. RNAssure can stabilize RNA at room temperature for at least 3 days. See table for complete storage options.



STORAGE CONDITION	LENGTH OF PROTECTION
Room temperature (15 – 25 °C)	3 days
Refrigeration (2 – 8 °C)	2 weeks
Frozen (< -70 °C)	> 1 year

Note: GenTegra RNAssure is designed to stabilize RNA in the liquid state by inactivating trace nucleases of all classes, protecting against oxidation, as well as helping prevent non-specific adherence of RNA to plastic materials. RNA stabilized in GenTegra RNAssure can be used directly in downstream applications including quantitation, gel or Bioanalyzer™ analysis, RT-PCR, and NGS library preparation. No additional cleanup steps are needed.

Frequently Asked Questions

Q What is GenTegra RNAssure? Is GenTegra RNAssure composed of a filter, beads, or paper?

A GenTegra RNAssure is a water soluble, chemical matrix provided dried in a microcentrifuge tube. RNAssure is not composed of any filters, beads, or paper.

Q Can I use the RNA in GenTegra RNAssure directly for downstream applications?

A Yes, additional purification is not required prior to performing downstream applications. The GenTegra RNAssure does not interfere with any downstream protocol.

Q When removing DNA contamination from my RNA preparation does the inhibitor in GenTegra RNAssure interfere with digestion of gDNA using DNase I?

A No, the inhibitor concentration used in RNAssure will not interfere with common DNase treatment protocol.

Q Can I elute an RNA sample in a volume that is smaller than the recommended 20 μ L?

A Collecting less than 20 μ L will increase the concentration of the active ingredient which may inhibit downstream analysis.

Q Can I use RNAssure with TRIzol or non-standard RNA purification kits?

A Yes, RNAssure Elution Tube can be used without the need for manufacturer kits with spin columns. After the final elution or resuspension step, collect 20 – 150 μ L of the RNA sample and add it to the GenTegra RNAssure Elution tube. Mix by gently tapping or pipetting up and down 10 times to solubilize the RNAssure stabilization agent into the purified RNA sample.

Q Can I use RNAssure with whole blood stabilization tubes (PAXgene, Tempus, etc.)?

A Yes, RNAssure Elution Tubes are compatible with whole blood stabilization tubes.

Q Does the use of GenTegra RNAssure interfere with library construction?

A At its normal concentration there is no effect on the reverse transcriptase or polymerase reactions.

Q Will GenTegra RNAssure interfere with the removal of RNA template after the first strand reaction?

A RNAssure contains potent inhibitors of all RNases. To ensure proper removal of RNA templates, ensure that the input RNAssure stabilized RNA sample constitutes less than 10% of the total reaction volume.

Q Is there a minimum or maximum concentration of RNA that can be used?

A There is no limitation of RNA concentration. However, follow the RNA extraction kit manufacturer's recommendation and do not exceed the recommended total RNA amount.

Q Will GenTegra RNAssure work with small RNA molecules (e.g., miRNAs, tracrRNA, etc.)?

A Yes, GenTegra RNAssure is a chemical matrix that effectively protects all forms of RNA.

Q Will the presence of GenTegra RNAssure change my 260/280 or 260/230 ratio?

A GenTegra RNAssure will not affect 260/280 ratio. However, it has an absorbance of approximately 0.4 OD at 230 nm (e.g. NanoDrop analysis) and will cause a slightly higher 230 nm sample reading and therefore reduce the 260/230 ratio value. If desired, a "blank" or control sample can be made. To do this, add same volume of nuclease-free water to an empty RNAssure tube.