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## User Guide for BULK GenTegra RNA

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### **Purpose:**

BULK GenTegra-RNA product is for stabilizing and protecting your RNA samples during non-dry ice, ambient shipment. BULK GenTegra-RNA offers you both the flexibility to add the stabilizing reagent directly to your RNA samples and the opportunity to use JGI-supplied pre-labeled matrix tube or 96-well plate containers. Your samples must be dried properly before shipment and will be rehydrated after arrival to the JGI. Please note that use of BULK GenTegra-RNA is only allowed when they are restricted from shipping with dry ice and you must have prior approval.

### **Important notes prior to using BULK GenTegra-RNA:**

1. It is required that you have received approval from the JGI Project Management Office to ship the GenTegra treated RNA. Once your samples are approved by the JGI, you will receive pre-labeled matrix tubes or 96-well plates.
2. The JGI does NOT support GenTegra treated RNA in the LIQUID format. Your sample must be sent dry.
3. If using matrix tubes, transfer one sample ID per corresponding pre-labeled matrix tubes before drying your RNA.
4. If using 96-well plates, it is required to leave the 4 corners empty at A1, H1, A12, and H12 wells, and only add one sample ID per corresponding well before drying your RNA. A minimum of 22 samples are required per plate.
5. You will need to contact GenTegra to order BULK GenTegra-RNA product. Testing Bulk GenTegra-RNA product on your samples is recommended. We tested the GenTegra-RNA 5X Protocol at the JGI following that protocol in the GenTegra user guide.

**Please review BULK GenTegra-RNA product information and user guide before starting:**

*Last updated 5/21/2025*

<https://gentegra.com/wp-content/uploads/2022/08/GenTegraRNA-Dry-BULK-User-Guide-vA2f.pdf>

## Protocol:

1. Purchase **BULK GenTegra-RNA (GTR100-B)** directly from GenTegra by contacting either [orders@gentegra.com](mailto:orders@gentegra.com) or [sales@gentegra.com](mailto:sales@gentegra.com)
2. The JGI recommends that you test your sample first using BULK GenTegra RNA on a small aliquot of your samples.
3. Please use the pre-labeled matrix tubes or plates provided by the JGI to add your RNA samples to.
4. Determine the concentration of purified RNA in the sample. Apply between **0.05-25 µg** of RNA in **45 µL of nuclease-free water** into each JGI-provided tube or a plate well.  
*Note: RNA should be resuspended in nuclease-free water prior to treating your sample with BULK GenTegra-RNA. Your RNA sample volume should not be more than 45 µL.*
5. Use GenTera-RNA **5X Protocol** for adding to your samples. Please follow the GenTegra manual:  
<https://gentegra.com/wp-content/uploads/2022/08/GenTegraRNA-Dry-BULK-User-Guide-vA2f.pdf>. Briefly:

- a. Add **0.55 mL of nuclease-free water** to the Bulk GenTegra-RNA Dry tube to make **5X solution** and dissolve using gentle mixing for 5-10 minutes.
- b. Add **5 µL** of GenTegra-RNA 5X solution to each **45 µL** RNA sample between **0.05-25 µg**. Please add enough material for your planned work at the JGI
- c. Mix thoroughly and gently to disperse the GenTegra Matrix and avoid foaming. If any foaming or bubbles occur during mixing, briefly centrifuge the plate to remove bubbles and place solution at the bottom of the plate well or tube.
- d. Quickly centrifuge to bring the matrix and sample to the well or tube bottom and remove any foaming or bubbles.
- e. Dry your samples in the JGI provided containers. Drying should occur at room temperature **WITH NO ADDED HEAT**. Ensure that your RNA sample is completely dry (in our test samples at the JGI, a SpeedVac at ambient temperature was used). Please note that the drying times will vary based on your drying method. Please check your sample frequently during the drying process.
- f. Once each of the samples is dry, cap your matrix tube or seal your plate with the JGI provided seal. Ensure that each plate or tube has a JGI provided label. Store them at room temperature.

## Shipping Instructions:

1. Ensure that your samples are completely dry prior to shipping in the JGI provided pre-labeled containers.
2. Ship your dried BULK GenTegra-RNA treated samples in SECONDARY containment for protection.

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3. Ensure that the box for BULK GenTegra-RNA is checked on the JGI shipping checklist, with the number of treated tubes and/or plates you are sending.

Check this box if you have included BULK GenTegra RNA treated sample/s and list the total amount

\_\_\_\_\_# of tubes of BULK GenTegra RNA treated

\_\_\_\_\_# of plates of BULK GenTegra RNA treated

4. Ship samples with a copy of both the JGI shipping email and shipping checklist.

### **Additional Information**

*For a summary of the in-house testing and results performed at the JGI please contact your Project Manager.*

### **Change History:**

5/21/2025 Added option for BULK GenTegra RNA use in JGI-supplied pre-labeled matrix tubes or plates.

*Last updated 5/21/2025*