

**Total Nucleic Acid Preservation Tubes**  
Product # 69200

**Product Insert**

**Norgen's Total Nucleic Acid Preservation Tubes are designed for ambient preservation and transport of total nucleic acids (DNA and RNA) from samples collected using a swab.**

**INTENDED USE:**

Norgen's Total Nucleic Acid Preservation Tubes are designed for ambient preservation and transport of total nucleic acids (DNA and RNA) from samples collected using a swab, including nasal, buccal, saliva, fecal, skin, surfaces, etc. The Total Nucleic Acid Preservation Tubes contain Norgen's Total Nucleic Acid Preservative in a liquid format. The user simply collects the specimen using a sterile nylon flocked swab (not provided), and then transfers the swab into the Total Nucleic Acid Preservative. The preservative prevents the growth of Gram-negative and Gram-positive bacteria and fungi, and also inactivates viruses allowing the resulting non-infectious samples to be handled and shipped safely. In addition, the Total Nucleic Acid Preservative eliminates the need to immediately process or freeze samples and allows the samples to be shipped to centralized testing facilities at ambient temperatures. The components of the Preservative allow DNA samples to be stored at room temperature for over 4 months and RNA samples to be stored at room temperature for over 2 months.

**NUCLEIC ACID ISOLATION FROM PRESERVATIVE**

Swab samples collected and preserved using Norgen's Total Nucleic Acid Preservation Tubes are compatible with most commercially available DNA and RNA isolation methods. Samples stored in the tubes have been used successfully with most of Norgen Biotek's DNA and RNA isolation kits and reagents, including Norgen's Total RNA Purification Kit (Cat# 17200) and Norgen's Saliva DNA Isolation Kit (Cat# RU45400). For purification of total nucleic acids please refer to the supplementary protocol provided with Norgen's Total RNA Purification Kit (Cat#17200).

**Specifications**

Kit Specifications	
Stability of DNA at Room Temperature	4 months
Stability of RNA at Room Temperature	2 months

**Advantages**

- No need to immediately process samples
- Total DNA, including viral DNA, preserved at room temperature over 4 months
- Total RNA, including viral RNA, preserved at room temperature over 2 months
- Inactivate microorganisms including bacteria, fungi, yeast and viruses
- Ship swab samples at room temperature safely
- Compatible with most DNA and RNA isolation methods

**Kit Components**

Component	Product # 69200
Total Nucleic Acid Preservation Tubes	50
Product Insert	1

### Storage Conditions and Product Stability

The Total Nucleic Acid Preservation Tubes can be stored at room temperature for up to 1 year without any reduction in kit performance. The collect before date is indicated on the tube label and the kit box label.

### Disclaimers and Satisfaction Guarantee

This product is designed for research purposes only. It is not intended for diagnostic use.

NORGEN BIOTEK CORPORATION guarantees the performance of all products in the manner described in our product manual. The customer must determine the suitability of the product for their particular use. We reserve the right to change, alter, or modify any product to enhance its performance and design.

### Warnings and Precautions

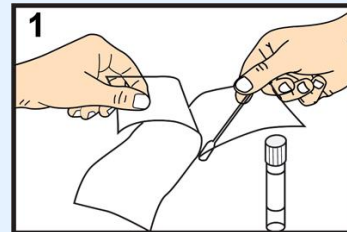
1. If any of the Total Nucleic Acid Preservative comes into contact with skin or eyes, wash thoroughly with water. Do not ingest the Total Nucleic Acid Preservative.
2. The Total Nucleic Acid Collection Tube contains a choking hazard (Collection Tube Cap). Keep away from children.
3. Samples obtained from human and animal subjects are considered potentially infectious. All necessary precautions recommended by the appropriate authorities in the country of use should be taken when working with human specimens. Dispose of human specimens according to local, provincial or federal regulations.
4. The Total Nucleic Acid Preservative will form reactive compounds when combined with bleach, thus care must be taken to properly dispose of any spilled preservative or remaining samples.

### Customer-Supplied Reagents and Equipment

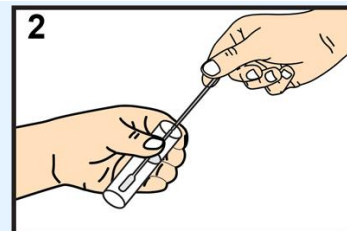
- Sterile nylon flocked swabs
- Scissors (if swabs do not have an appropriate break point)

## Procedure

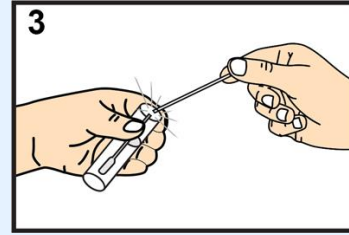
1. Obtain a swab. Peel open the swab wrapper and remove the swab. **Do not touch the swab tip.** Collect the specimen using the swab.



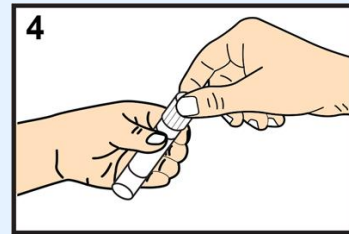
2. Using the appropriate aseptic technique, open the collection tube and insert the swab tip into the vial. **Make sure that the swab is in contact with the Total Nucleic Acid Preservative solution.**



3. Break the swab shaft at the indicated score mark (or cut the swab handle), leaving the swab tip in the collection tube. Discard swab shaft and wrapper.



4. **Replace the tube cap, securing tightly.** Label tube accordingly. The sample is now stable for transport and/or storage prior to DNA and/or RNA purification.



### ISOLATION OF NUCLEIC ACIDS FROM PRESERVED SWABSAMPLES

Nucleic acids can be purified from the preserved swab sample using a number of different methods, including Norgen's various sample preparation kits (please refer to Related Products table below). The purified nucleic acids are of the highest quality and can be used in a number of downstream applications including PCR, NGS and microarray analysis.

**Note:** Ensure that the swab is present in the Total Nucleic Acid Preservative Tube and that the tip of the swab is fully immersed in the Total Nucleic Acid Preservative prior to starting isolation. Any tubes that do not contain swabs or an insufficient volume of preservative should be discarded and not processed for nucleic acid isolation.

#### Disposal of Remaining Preservative

The Total Nucleic Acid Preservative will form reactive compounds when combined with bleach, thus care must be taken to properly dispose of any of any remaining samples. Dispose of any remaining preserved samples as per your institutions hazardous chemical waste procedures.

Samples can be shipped to the lab for analysis using Norgen's Shipping Accessories (50 Mailers - Cat# 38300). Norgen's Shipping Accessories provide a safe and convenient tool for shipping non-infectious biological specimens, and includes all shipping requirements in one convenient envelope, including leak-proof biohazard bags with adsorbent pads for enhanced safety. These shipping envelopes match the standards of OSHA as well as the IATA regulations.

Related Products	Product #
Shipping Accessories – 50 Mailers	38300
Total RNA Purification Kit	17200, 37500
Saliva DNA Isolation Kit	45400
RNA/DNA Purification Kit	48700

**Technical Support**

Contact our Technical Support Team between the hours of 8:30 and 5:30 (Eastern Standard Time) at (905) 227-8848 or Toll Free at 1-866-667-4362.

Technical support can also be obtained from our website ([www.norgenbiotek.com](http://www.norgenbiotek.com)) or through email at [techsupport@norgenbiotek.com](mailto:techsupport@norgenbiotek.com).

3430 Schmon Parkway, Thorold, ON Canada L2V 4Y6  
Phone: (905) 227-8848  
Fax: (905) 227-1061  
Toll Free in North America: 1-866-667-4362