

## Sputum Liquification Buffer (10X)

Product # 28289, 28290

## Product Insert

Norgen's Sputum Liquification Buffer is designed for the liquification of viscous sputum samples prior to isolation of cells for microscopy or nucleic acids for molecular testing. The homogenization of sputum samples is often desirable, particularly when there is a requirement for centrifugation to pellet cells or prior to the isolation of nucleic acids. The Sputum Liquification Buffer contains the mucolytic agent dithiothreitol which acts by reducing the disulfide bonds of the mucus proteins, thereby decreasing sample viscosity and allowing for easy handling and processing. Genomic DNA or RNA can then be isolated from the homogenized sample as Norgen's Sputum Liquification Buffer is both DNase and RNase-free.

### Product Components:

Component	Product # 28289	Product # 28290
Sputum Liquification Buffer (10X)	10 mL	10 x 10 mL
Product Insert	1	1

### Customer-Supplied Reagents and Equipment

- Sterile dH<sub>2</sub>O
- Disposable powder-free gloves
- Micropipettors
- Sterile pipette tips
- 37°C incubator

### Storage Conditions and Product Stability

Buffer should be kept tightly sealed and stored at room temperature (15-25°C) for up to 2 years without showing any reduction in performance.

### Quality Control

In accordance with Norgen's ISO 9001 and ISO 13485-certified Quality Management System, each lot of Norgen's Sputum Liquification Buffer (10X) is tested against predetermined specifications to ensure consistent product quality.

### Precautions and Disclaimers

This reagent is designed for research purposes only. It is not intended for human or diagnostic use.

### Product Warranty and Satisfaction Guarantee

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 its particular use.

### Safety Information

All biological samples should be considered as potentially infectious. Proper biosafety measures should therefore be carried out when using this reagent.

Ensure that a suitable lab coat, disposable gloves and protective goggles are worn when working with chemicals. For more information, please consult the appropriate Material Safety Data Sheets (MSDSs). These are available as convenient PDF files online at [www.norgenbiotek.com](http://www.norgenbiotek.com).

## Protocol

### A. Specimen Collection, Storage and Transport

**Precaution:** All samples have to be treated as potentially infectious material.

#### 1. Specimen Collection and Sample Storage

- Expecterated or induced sputum samples may be collected
- Sputum should be collected into a sterile sputum collection cup, vial or tube
- Fresh sputum samples should be processed within one hour of collection.

#### 2. Sample Transport

- Sample material should be transported in a shatterproof, leak-proof transport container as a matter of principle. Thus, a potential danger of infection due to a leakage of sample can be avoided.
- The samples should be transported following the local and national instructions for the transport of pathogenic material.

### B. Sputum Homogenization

1. Dissolve 10 mL of Sputum Liquefaction Buffer (10X) in 100 mL of sterile dH<sub>2</sub>O to a working concentration of 1X.
2. Add an equal volume of Sputum Liquefaction Buffer to the sputum sample and vortex the sample for 10 seconds to mix.
3. Place the sample at 37°C and incubate with intermittent vortexing to homogenize the sample.
4. Most samples will be completely liquefied/homogenized within 20 minutes, at which time they are ready to be used in downstream analyses.

## Frequently Asked Questions

#### 1. What type of container should I use to collect my sputum sample?

Sputum should be collected into a sterile sputum collection cup, vial or tube.

#### 2. What if I added more or less of the specified reagent volume?

Adding more or less volume of the liquefaction buffer should not negatively affect the sample however it will alter the incubation time.

Related Products	Product #
Sputum DNA Isolation Kit	46200

## Technical Assistance

NORGEN's Technical Service Department is staffed by experienced scientists with extensive practical and theoretical expertise in sample and assay technologies and the use of NORGEN products. If you have any questions or experience any difficulties regarding Norgen's Sputum Liquification Buffer (10X) or NORGEN products in general, please do not hesitate to contact us.

NORGEN customers are a valuable source of information regarding advanced or specialized uses of our products. This information is helpful to other scientists as well as to the researchers at NORGEN. We therefore encourage you to contact us if you have any suggestions about product performance or new applications and techniques.

For technical assistance and more information, please 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 or call one of the NORGEN local distributors ([www.norgenbiotek.com](http://www.norgenbiotek.com)) or through email at [techsupport@norgenbiotek.com](mailto:techsupport@norgenbiotek.com).

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