

# SYNCstore™ STM

## Specimen Transport Medium

*For molecular testing use only*

*For professional use only*

### Indications for use

SYNCstore™ STM is intended for the stabilization, transportation and inactivation of infectious samples suspected of containing viral and bacterial DNA/RNA. SYNCstore™ STM is intended for molecular testing only, **DO NOT** use SYNCstore™ STM for antigen and antibody rapid tests.

### Sample

Nasopharyngeal, Oropharyngeal swabs  
Saliva specimens  
Sputum specimens

### Functions

Virus/bacteria killing  
Nucleases inactivation  
RNA stabilization  
Sample long term storage  
Room temperature transport

### Introduction

The SYNCstore™ STM device consists of a 7 mL storage tube with a cap containing 1 mL or 3 mL of the stabilization solution. These components are intended to inactivate virus and bacteria, lyse cells, lyse lipid membranes, denatures proteins, inactivates enzymes, and stabilize viral and bacterial DNA/RNA. The transport medium is designed for storage of specimens between 2-25 °C.

### Kit Contents

Product name	SS1000-100	SS1000-400
SYNCstore™ STM	1ml X 100	1ml X 400

### Safety Measures

SYNCstore™ STM contains Guanidine salts can form highly reactive compounds and release cyanide gas when combined with bleach (sodium hypochlorite). If the split SYNCstore™ STM medium containing potentially infectious agents, clean the affected area first with laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite. During the procedure, always wear a lab coat, disposable gloves, and protective goggles.

### Sample preservation in SYNCstore™ STM Protocol

Protocol 1	<b>For nasopharyngeal and oropharyngeal swab sample</b> <ul style="list-style-type: none"><li>Collect the sample using a nasopharyngeal or oropharyngeal swab according to your internal procedures.</li><li>Place the swab in the SYNCstore™ STM medium and break the swab shaft at the marked breaking point. Make sure the swab tip is completely immersed into the SYNCstore™ STM medium.</li><li>Close the cap.</li><li>Ready for transport or store at low temperature.</li></ul>
Protocol 2	<b>For saliva and sputum sample</b> <ul style="list-style-type: none"><li>Add the SYNCstore™ STM to saliva or sputum sample in a collection tube. (V/V=2:1, ex. add 1 ml SYNCstore™ STM to 0.5 ml saliva or sputum sample).</li><li>Close the cap and shake the tube vigorously several times.</li><li>Ready for transport or store at low temperature.</li></ul>

## Test data

### Bacteria Killing



#### Test 1

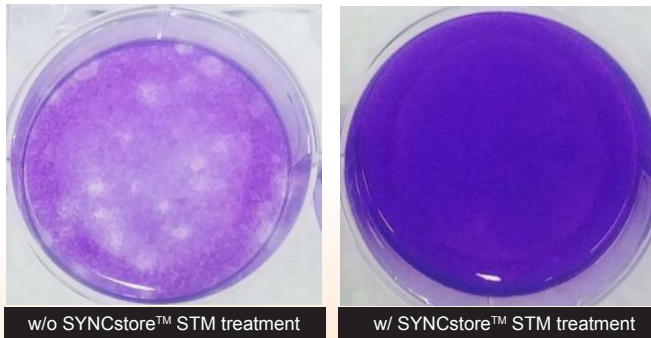
*Staphylococcus aureus* (Gram-positive) were grown to 0.8 of OD600. Same amount cells with SYNCstore™ STM treatment at room temperature for 10 minutes and without treatment were plated on BAP plates and incubated for 48 hrs. The results showed that the *Staphylococcus aureus* cells can be completely killed by SYNCstore™ STM.



#### Test 2

*Escherichia coli* (Gram-negative) were grown to 0.8 of OD600. Same amount cells with SYNCstore™ STM treatment at room temperature for 10 minutes and without treatment were plated on BAP plates and incubated for 18 hrs. The results showed that the *Escherichia coli* cells can be completely killed by SYNCstore™ STM.

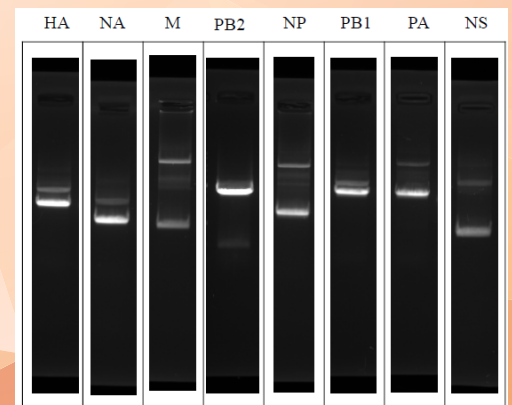
### Virus killing



The Influenza A virus (RNA, enveloped virus) with and without SYNCstore™ STM treatment was mixed with growth medium and poured onto a plate with a lawn of actively growing MDCK cells. After overnight incubation, the plaques were visualized, quantified, and the titer was determined. The results showed that SYNCstore™ STM can completely kill the Influenza A virus.

### RNA storage stability

SYNCstore™ STM provides long-term storage of Influenza A viral RNA. It efficiently protects the RNA integrity after 14 days storage at 25 °C. All segments of viral RNA can be detected by RT-PCR.



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