

# Sample Collection and Transportation

*Made Simple<sup>®</sup>*



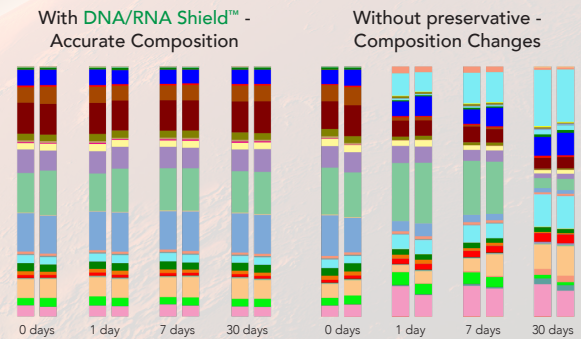
**DNA/RNA Shield<sup>™</sup>**

Prefilled Devices, Bulk Reagent, & Customs Fills Available

## Transport Any Sample, Anywhere

DNA/RNA Shield™ preserves the genetic integrity of a sample at point of collection for sensitive down-stream analyses (i.e., Next-Gen Sequencing, RT-PCR, etc.). Any sample type can be stored in DNA/RNA Shield™ for transport at ambient temperature, even in the most extreme conditions.

Scientists at NASA are utilizing DNA/RNA Shield™ to collect biological specimens from astronauts to assess how the human microbiome is affected by a microgravity environment. DNA/RNA Shield™ serves a vital role in preserving the genetic profiles of their samples in ever-changing and uncontrollable conditions.



Microbial composition of stool is unchanged after one month at ambient temperature with DNA/RNA Shield™. The extracted DNA was subjected to microbial composition profiling via 16S rRNA gene targeted sequencing.

## Safety at All Levels

DNA/RNA Shield™ lyses and effectively inactivates pathogens in a sample. This includes tough-to-lyse microbes or viruses without the need for additional steps, such as heat-treatment, homogenization, or alcohol sterilization.

DNA/RNA Shield™ has been rigorously tested to ensure its capability to inactivate even the toughest of viruses. In an independent study, the virucidal activity was shown to inactivate murine parvovirus.<sup>1</sup> DNA/RNA Shield™ abides by the Center for Disease Control's (CDC) guidelines for pathogen inactivation.<sup>2</sup>



Transport



## Handling



## Processing



BY

**Eurovir®** Hygiene-Labor  
**Antivirale Validierung & Rabies**



CENTERS FOR DISEASE  
CONTROL AND PREVENTION

## Bacteria

*B. subtilis*, *E. faecalis*, *E. coli*, *L. fermentum*, *L. monocytogenes*, *M. tuberculosis*, *P. aeruginosa*, *S. enterica*, *S. aureus*, *S. pneumoniae*, *X. fastidiosa*

## Viruses

Parvovirus, Chikungunya Virus, Dengue Virus, Ebola Virus, Herpes Simplex Virus-1, Herpes Simplex Virus-2, Influenza A, Rhinovirus, MERS-coronavirus, West Nile Virus

## Yeast & Eukaryotes

*C. albicans*, *C. neoformans*, *S. cerevisiae*, *P. malariae*

1. Dr. Thraenhart and Dr. Jursch Virucidal activity of the nucleic acid preservation product "DNA/RNA Shield™" against the murine parvovirus (MVM) at 20 °C.

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2. Guidance on the inactivation or removal of select agents and toxins for future use. Center for Disease Control (CDC)

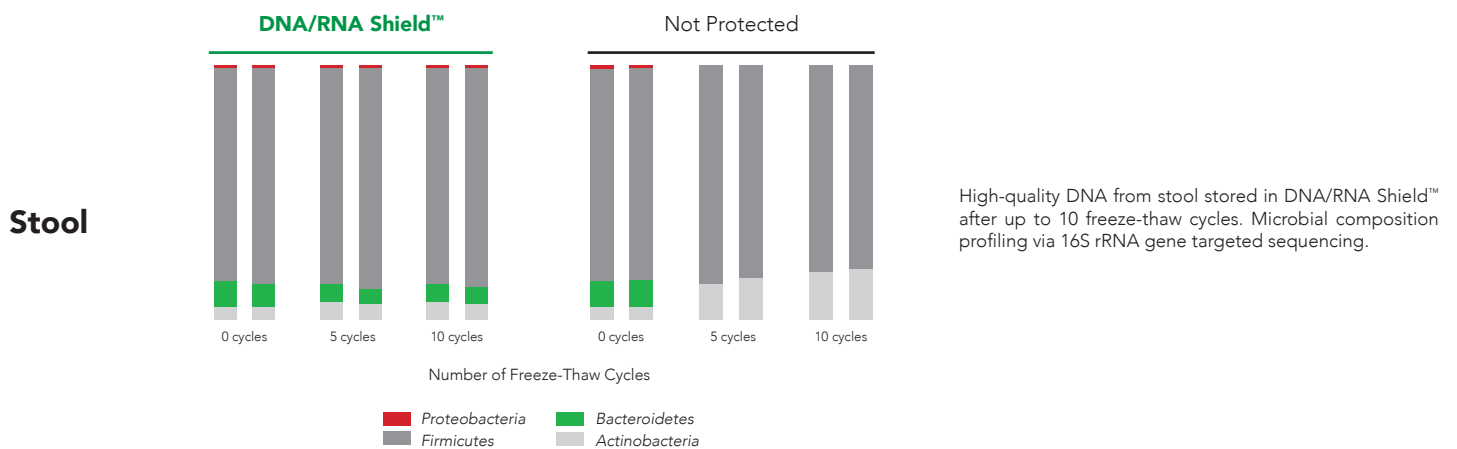
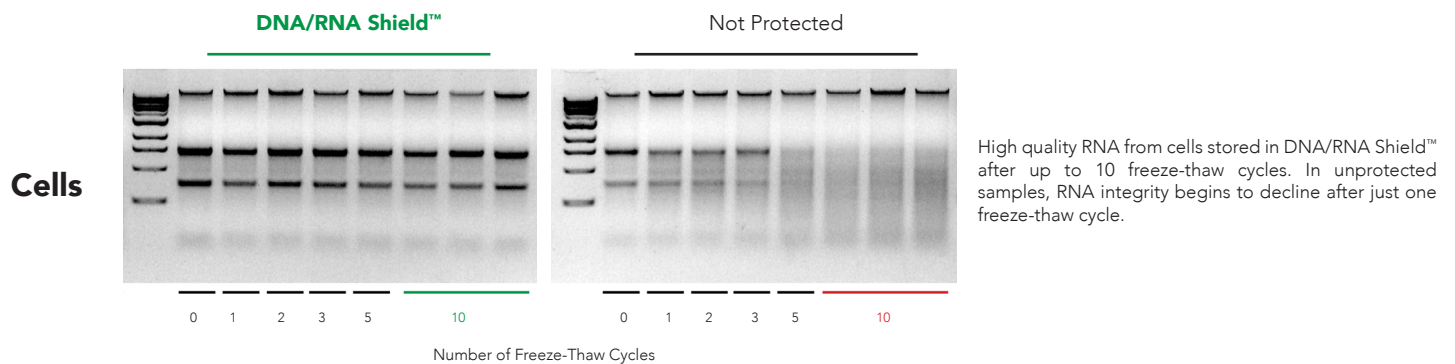
# Peace of Mind

## Protect Samples From Freeze-Thaw Degradation

Today's most common practice for storing biological specimen, whether it be short or long-term, is the use of freezers. Unfortunately, freezers are not impervious to failing for a number of reasons - more notably mechanical failure and power outages.

DNA/RNA Shield™ provides peace of mind to scientists, as it preserves the genetic integrity even under stressful freeze-thaw cycles, ensuring that precious samples will not be lost due to such events. DNA/RNA Shield™ can be purchased as a bulk liquid reagent, in pre-filled devices, and ordered in custom filled devices to meet any user's need.

### Prevent the Effects of Freeze-Thaw Cycling



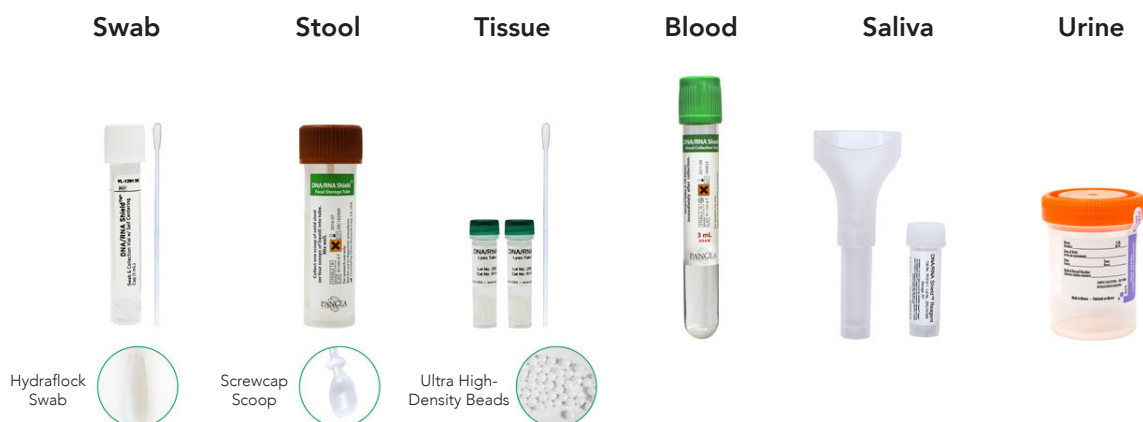
### DID YOU KNOW?

One of the world's largest repositories of autism brain samples suffered a freezer failure in its tissue bank, losing a third of its samples. Researchers reported at the time that the priceless collection took over 14 years to collect and could set autism research back by a decade.<sup>1</sup>



1. Weintraub, Karen. (2012, June 11). "Freezer failure at brain bank hampers autism research". *The Boston Globe*.

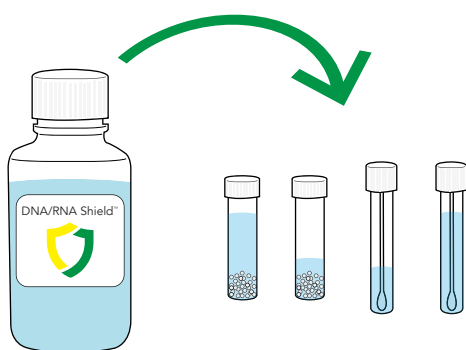
# Prefilled Devices



Product	Cat. No.	Size
DNA/RNA Shield™ - Fecal Collection Tube	R1101	10 pack
DNA/RNA Shield™ Collection Tube	R1102	50 pack
DNA/RNA Shield™ Lysis Tube (Microbe)	R1103	50 pack
DNA/RNA Shield™ Lysis Tube (Microbe) w/ Swab	R1104	50 pack
DNA/RNA Shield™ Lysis Tube (Tissue)	R1105	50 pack
DNA/RNA Shield™ Collection Tube w/ Swab (1 ml fill)	R1106 R1107	10 pack 50 pack

Product	Cat. No.	Size
DNA/RNA Shield™ Collection Tube w/ Swab (2 ml fill)	R1108 R1109	10 pack 50 pack
Urine Collection Kit w/ Urine Conditioning Buffer	D3062	10 pack
DNA/RNA Shield™ - Blood Collection Tube	R1150	50 pack
DNA/RNA Shield™ Saliva Collection Kit	R1210	1 unit
DNA/RNA Shield™	R1100-50 R1100-250	50 ml 250 ml

**Custom Fills Available:** Any Device. Any Volume.



Contact us with any custom fill requests at  
**[oemorders@zymoresearch.com](mailto:oemorders@zymoresearch.com)**