

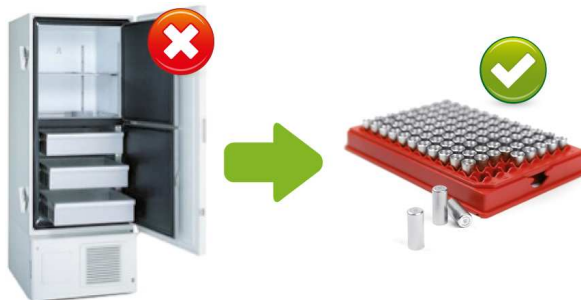


In the life sciences and biotechnology fields, DNA and RNA preservation has become a major issue due to the exponential increase in the number of samples requiring storage at low temperatures.

The DNAsshell® and RNAsshell® capsules provide a safe and simple solution for room temperature storage, from short to long term, of DNA and RNA, fully protected from their degradation factors.

DNAsshell® and RNAsshell® are easy to handle, store and transport safely.

## ROOM TEMPERATURE DNA AND RNA PRESERVATION IS NO LONGER A DREAM



### CONSTRAINTS AND HAZARDS OF FREEZING

The technologies based on the use and analysis of nucleic acids have rapidly evolved over the last 20 years. However, procedures for DNA and RNA preservation have remained unchanged.

Nucleic acids are usually stored in solution (i.e. alcohol or water) at -20°C or -80°C.

These procedures are space demanding, difficult to automate, and are costly in terms of equipment, energy and maintenance.

In addition, these conventional storage methods may expose samples to the risks of degradation, contamination and loss in the event of serious material accidents (i.e. loss of energy sources).

### PROTECTION FROM ANY ALTERATION

Cold-free preservation of DNA and RNA is a major technological, economical and ecological challenge for academic laboratories, hospitals, biological resource centres, biotechnology companies, forensic laboratories, pharmaceutical companies.

A simple dehydration is not enough to efficiently preserve and stabilize DNA and RNA at room temperature.

It is imperative that DNA and RNA be rigorously protected from all degradation factors<sup>1</sup>.

<sup>1</sup>Colotte *et al.*, 2011, *Biopreservation and Biobanking*, 9(1)47-50

### A WORLDWIDE PATENT

Imagene has developed and worldwide patented a technology for the long-term preservation of dried DNA and RNA at room temperature.

The technology is realised in the DNAsshell® and RNAsshell® capsules which utilize the encapsulation of preliminarily desiccated purified nucleic acids, under a controlled atmosphere, into small sealed, corrosion-proof metallic capsules.

This process prevents DNA and RNA from being altered by any degradation factors (water, oxygen, light).

DNAsshell® and RNAsshell® capsules offer the convenience of preserving the DNA and RNA of any species (human, animal, vegetal, microorganisms) in a form that is compatible with all applications used for downstream analysis.

### DECISIVE ADVANTAGES

Completely anhydrous, anoxic and perfectly airtight, DNAsshell® and RNAsshell® capsules possess the expected decisive advantages when compared to freezing by providing enhanced stability, safety, and transport and distribution of nucleic acids as well as lower operation and maintenance costs.

In addition, the laser-marked Data Matrix codes on the capsules enable easy traceability and inventory of each DNA and RNA sample.