ATELERIX

SAVE YOUR CELLS

BROCHURE

A roll through our products and amazing applications in ambient biosample preservation


ATELERIX
CORN

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Expect a lot of compelling scientific evidence, use cases data, oh and lots of hedgehogs

ABOUT ATELERIX

Welcome to Atelerix, where we've turned cell preservation into a punk rock science experiment! We're the rebellious scientists who decided that freezing cells was so last century. Instead, we've concocted a groovy gel-based solution that keeps your biological bits fresh and funky at room temperature.

Picture this: your cells, tissues, and viruses chillin' like villains in our hypothermic hydrogels, giving the cold shoulder to cryopreservation. We're not just preserving cells; we're throwing them a cozy hibernation party inspired by our spirit animal, the African four-toed pygmy hedgehog. Because if a hedgehog can do it, why can't your cells?

Our customer base is growing like bacteria in a petri dish, with scientists worldwide using our products for everything from drug discovery to research. And hold onto your lab coats, folks, because we're about to crash the party in regulated markets like cell and gene therapy, and diagnostics. It's gonna be cellular chaos, and we're here for it!

ATELERIX *Solution*

- **Extend shelf life of fresh biological products**
- **Avoid damage associated with freeze-thaw**
- **Preserve fragile cells and complex physiologically relevant cell-based models**
- **Protect from physical damage during shipment**
- **Avoid complex cryologistics and risk of thaw**

THE TECHNOLOGY

Our plant-based hydrogels are derived from brown seaweed. They are pharmaceutical grade high purity alginates which are highly characterised and consistent. Alginate formulations have been optimised specifically for cell storage and protocols streamlined for ease of use and scalability. Upon exposure of the liquid non-crosslinked alginate to free cations, gelation occurs encapsulating your precious sample. When required the sample can be quickly released through the addition of a salt-based buffer in a simple cell-friendly process. All raw ingredients are produced to GMP guidelines and ISO 13485 standards making products readily translatable to regulated applications.

derived from brown seaweed

Natural Biopolymer

No Toxic Chemicals

Xeno-free

Quick and easy to use

Maintain high quality fresh samples for longer

THE SCIENCE

Cells, tissues, or viruses are encapsulated by the alginate gel which stabilises lipid membrane integrity during hypothermic storage. Excess ion and water diffusion into the cell is quenched preventing membrane deterioration over time. This keeps the cells alive and in a state of “hibernation” allowing them to be safely stored and/or shipped for extended periods of time.

When required they are quickly “awoken” upon return to physiological temperatures in the same state they entered.

A virus encapsulated

RETAIN CELL VIABILITY AND FUNCTION

Come with me to your icy chariot...

For many cells and tissues, freezing and thawing through cryopreservation can be hugely damaging, causing impaired function or death. Whilst higher hypothermic temperatures can be less destructive, the time in which cells can be stored is severely limited due to pore formation and deterioration of the cell membrane. Our products extend the time that biological samples can be stored at hypothermic temperatures resulting in a consistently high yield, viability, and function for longer.

PRESERVE COMPLEX PHYSIOLOGICALLY-RELEVANT CELL-BASED MODELS

The use of increasingly complex cell models is becoming more popular to maximise physiological relevance within drug discovery, however these models can be extremely fragile. Our technology is proven to stabilise these models both biologically and physically during storage and shipment with its protective gel layers.

Shipment anxiety gone...

ELIMINATE COSTLY COMPLEX SHIPMENT

- ✕ NO DRY ICE OR LIQUID NITROGEN
- ✕ NO AIRLINE RESTRICTIONS
- ✕ NO RISK OF THAWING
- ✕ NO DRY ICE TOP UPS
- ✕ LOWER TARE WEIGHT

FREEZE THE CARBON, NOT THE PLANET: OUR HYDROGEL'S COOL APPROACH TO SUSTAINABILITY!

An eco-friendly alternative: Atelerix's hydrogels offer a more environmentally conscious approach to cell preservation, reducing reliance on carbon-intensive cryopreservation methods. By enabling ambient temperature shipping, Atelerix's technology significantly decreases the greenhouse gas emissions associated with cold chain logistics.

Energy efficiency: Hypothermic preservation eliminates the need for energy-intensive freezing and thawing processes required in cryopreservation.

Minimised use of cryoprotectants: Atelerix's method reduces or eliminates the need for potentially toxic cryoprotective agents often used in traditional freezing techniques.

Extended viability without freezing: Atelerix's hydrogels maintain cell viability for extended periods at hypothermic temperatures, offering a sustainable alternative to cryopreservation.

Biodegradable materials: The plant-based, pharmaceutical-grade alginate hydrogels used by Atelerix are environmentally friendly and biocompatible.

Reduced packaging waste: Ambient temperature shipping requires less insulation and packaging materials compared to cryogenic shipments, minimising waste and shipment volume.

Lower resource consumption: Hypothermic preservation reduces the need for liquid nitrogen and other resources associated with maintaining ultra-low temperatures.

Sustainable scalability: Atelerix's technology offers a more environmentally sustainable solution for scaling up cell therapy production and distribution

APPLICATIONS

RESEARCH

- Enhance flexibility in workflows by holding samples for longer
- Facilitate distribution of biological products between research organisations

BIOSUPPLY

- Increase quality and yield of cells
- Ship complex physiologically relevant cell types and models for ready-to-use assays
- Enhance global reach of sensitive biological samples
- Reduce recall of failed shipments

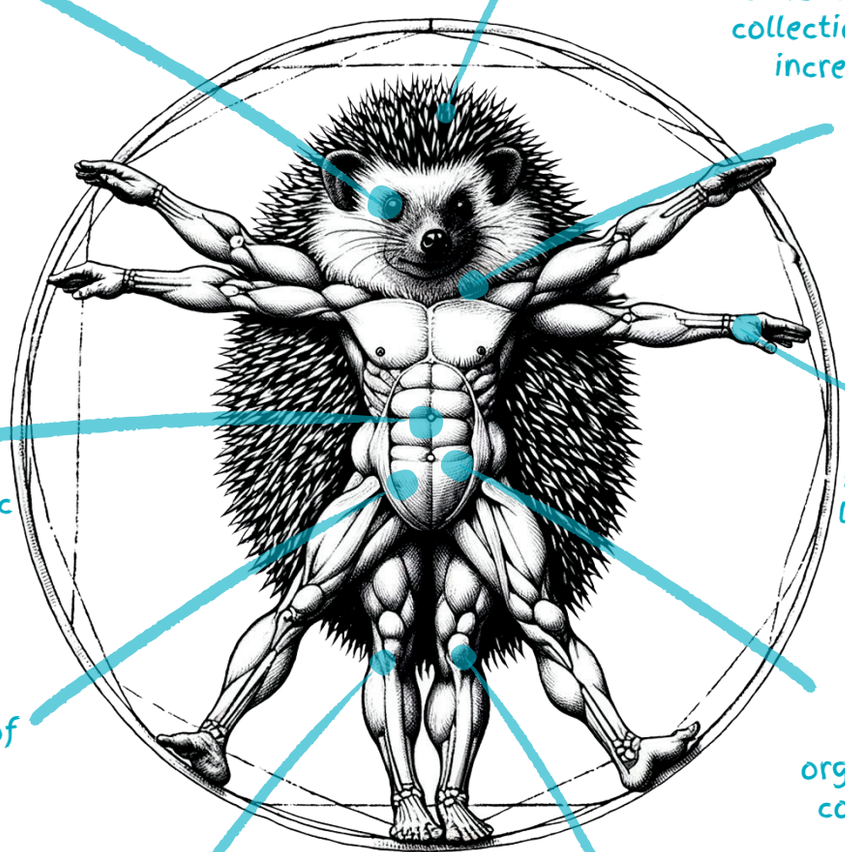
DRUG DEVELOPMENT & DIAGNOSTICS

- Preserve precious clinical samples
- Establish disease-relevant in vitro and in vivo models
- Monitor patients in clinical trials
- Use in advanced diagnostics and personalised medicine

THERAPY

- Improve quality of cell therapy starting materials for optimised manufacturing
- Stabilise cryosensitive cell-based therapies for optimal performance

WE KNOW IT WORKS...



Very cool!

Delivering an ocular cell-based therapy clinical trial in India

Protecting fragile iPSC-derived models during shipment

Enhancing cancer tissue collection & shipment for increased flexibility

Maintaining MSC viability & therapeutic function perfect for cell therapies

Amplifying the shelf life of leukapheresis starting material

Reducing the costs of shipping cell lines between the UK and APAC by 10-fold

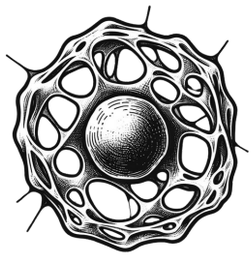
Shipment of 3d organoid models that couldn't be shipped before

Avoiding titre loss caused by freeze-thaw in lentiviral vectors

Enabling the distribution of transiently transfected reporter cell models for HTS

Our products have been used to preserve greater than 60 different biological sample types including primary cells, cell lines, organoids, engineered microtissues, cancer tissues, healthy tissues, blood products, viruses, and viral vectors.

See for yourself, download our data pack here



CYTOSTOR™

Suitable for suspended and adherent cells and viruses

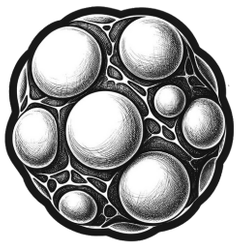
Cells are mixed with a gel solution then added to a vial containing gelation beads. After waiting a few minutes, the gel will cure in situ encapsulating the cells. The vial is sealed and ready for storage or shipment. Adding a gentle release buffer causes the gel to dissolve, releasing the cells ready to use.

Encapsulation: 5-10mins
Release: 10-15mins

Highly scalable and automatable

Why Choose CYTOSTOR?

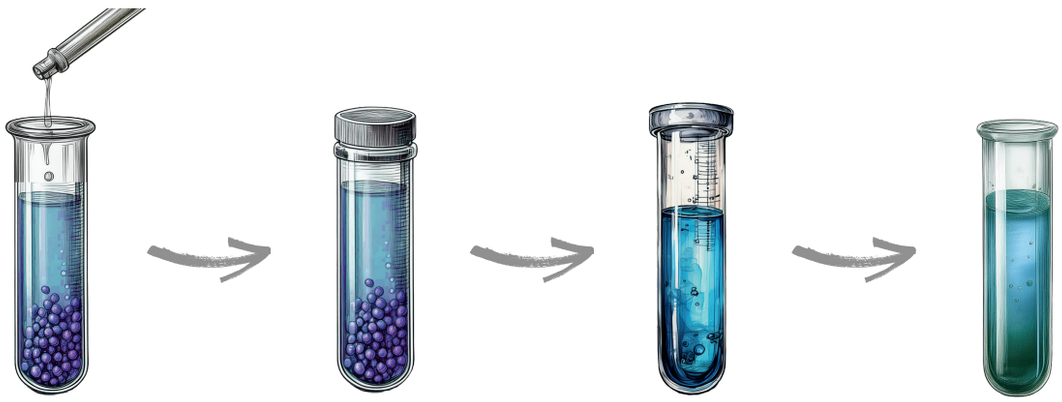
1. Preserve a broad range of cell types and viruses for up to 2 weeks
2. Move your samples across the world whilst maintaining viability, phenotype and function
3. Your cells can be easily encapsulated, shipped and released cost-effectively



BEADREADY™

Suitable for suspended and adherent cells

Cells are mixed with a gel solution then added dropwise into a gelation solution. As the droplets meet the solution, they form beads that encapsulate the cells. Excess gelation solution is discarded and replaced with your cells' preferred medium. The vial is sealed and ready for storage or shipment. Cells can be quickly released, when required, by adding a gentle release buffer to the vial.

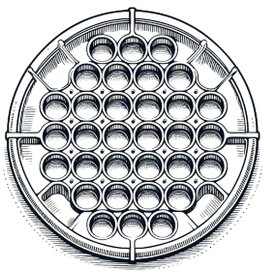


Encapsulation: 5-10mins
Release: 10-15mins

Perfect for imaging immobilised cells and for co-culture applications, even following storage!

Why Choose BEADREADY?

1. Preserve a broad range of cell types
2. Easily image your cells in 3D within a fully transparent hydrogel
3. Perfect for co-culture due to optimal mass transfer properties



WELLREADY™

Suitable for cells, organoids and microtissues in multi-well plates

With cells or organoids in place, a gel solution is pipetted into each well, followed by the gelation solution. After a few minutes the protective gel will form, and the plates are ready for storage or shipment. Adding the gentle release buffer to the wells causes the gel to dissolve, solutions are discarded and replaced with cells' preferred medium, plates are then ready for use.

Modified WellReady™ protocols for air-sensitive cells and cardiomyocytes are available as well as cells grown in culture inserts.

Gel A and Gel B

Gelation Buffers

Wash

Gel C and Store

Encapsulation: 20-30mins
Release: 20-30mins

Send ready-to-use assays

Preserve complex physiologically relevant cell models

Why Choose WELLREADY?

1. Preserve your cell monolayers and complex 3D models in a range of plate formats
2. Physically protect your fragile models during shipping
3. Send ready-to-use assays directly to your customers or collaborators

TISSUEREADY™

Suitable for primary tissue, organoids, spheroids and microtissues

A gel solution is added to a vial containing gelation beads, tissue is then inserted. After waiting a few minutes for the gel to form the tissue is ready for storage or shipment. Adding a gentle release buffer causes the gel to dissolve, releasing the tissue ready to use. Look out for **TISSUEREADY™ PLUS** - pre-formulated specifically for solid tissues.

Encapsulation: <5mins
Release: 10-15mins

Most people opt for TISSUEREADY™ PLUS for tissues and normal TISSUEREADY™ for organoids

Why Choose TISSUEREADY?

1. Preserve your fresh tissues, organoids, and microtissues for up to 1 week
2. Increase the quality and yield of viable cells from your tissues
3. Increase flexibility by processing incoming tissues at a time that suits you

LEUKOSTOR™

Specially formulated for leukapheresis material in blood bags

Mix a gel concentrate with leukapheresis material and transfer to a bag containing gelation beads. After waiting a few minutes apheresis material will gel in situ and is ready for storage or shipment. Adding a gentle release buffer causes the gel to dissolve, releasing the apheresis material ready to use.

GelBase Beads

Leukapheresis mixed with Gel A

Storage

Add Dissolution Buffer

Ready to Use

Encapsulation: 5-10mins
Release: 10-15mins

Available up to 70 mL format, larger volumes available on request

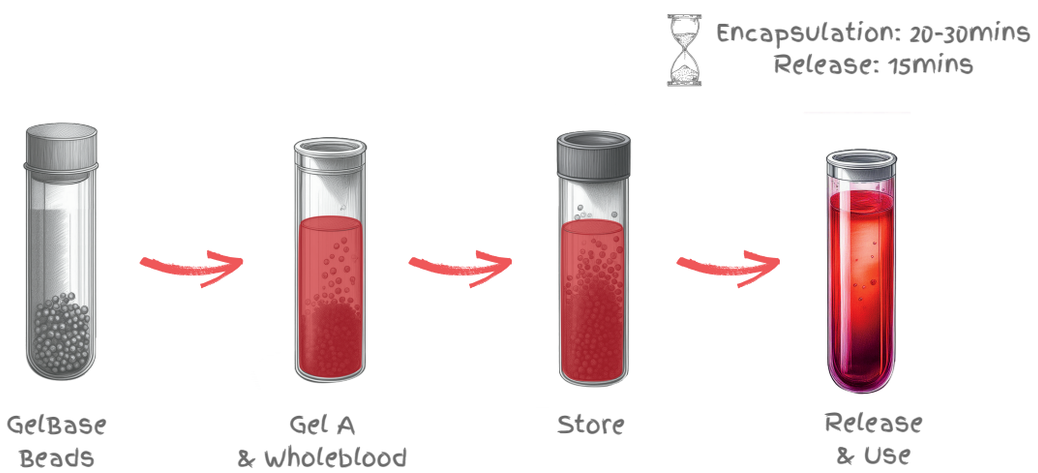
Why Choose LEUKOSTOR?

1. Preserve your leukapheresis material for up to 5 days
2. Move your samples across the world whilst maintaining the viability, phenotype and function of key immune cell populations
3. Available in a vial or bag format and can be handled in a closed system

BLOODREADY™

For the encapsulation of whole blood in a simple, scalable vial format

Encapsulate your sample by simply adding a gel concentrate to your whole blood sample and transferring to a vial containing gelation beads. After a few minutes, the whole blood and Gel mixture will gel in situ and is ready for storage or shipment. When ready to use, a gentle Dissolution Buffer is added to dissolve the gel, the beads are filtered out, and the whole blood sample ready to use.



Why Choose BLOODREADY?

1. Preserve your whole blood sample for up to 3 days.
2. Extend the stability of fresh whole blood from hours to days, allowing flexible transportation, processing, and analysis.
3. Preserve all leukocyte populations and cellular markers, without the need for fixation or cryopreservation.

“

HEY, YOU!

Yes YOU, I'm talking to YOU!

I'm stuck upside down!

turn me over and read about our awesome products!

”

ATELERIX