

**PRODUCT  
CATALOGUE**

VITRIFICATION  
THE CRYOTOP® METHOD



# **THE CRYOTOP® METHOD**

# THE CRYOTOP® METHOD

Kitazato, world leader in vitrification, has developed The Cryotop® Method and secured its global implementation achieving best-in-class results in cryopreservation of human specimens from oocytes to blastocysts.



Our objective is to provide you a method with proven evidence of success and to help you obtain the best outcomes that only Kitazato Vitrification offers.

The Cryotop® Method is applied in more than 2,500,000 clinical cases annually in over 115 countries and 3,000 assisted reproduction centers. Hundreds of scientific publications certify its excellence.

Kitazato's  
vitrification method  
is **simple, safe,  
versatile and easy  
to apply for  
everyone.**



## THE CRYOTOP® METHOD

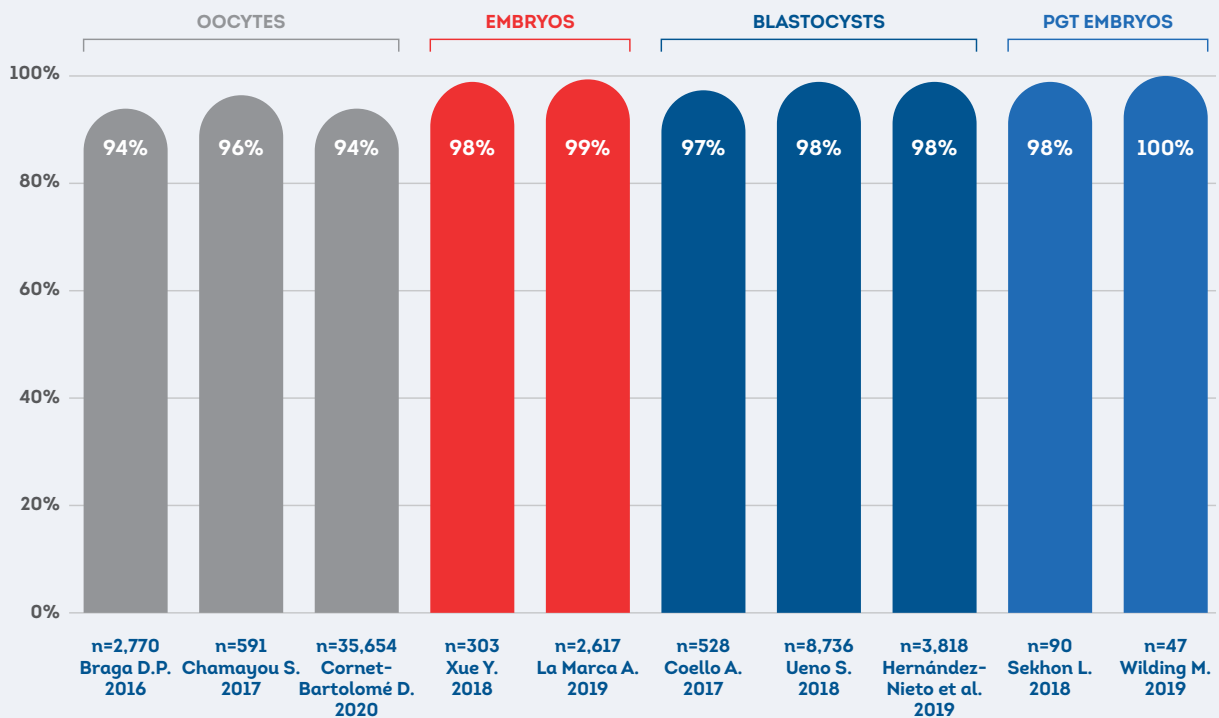
The Cryotop® Method allows you to achieve the best clinical outcomes. Its unparalleled survival rates for oocytes and embryos, at every stage of development, have contributed to bringing hundreds of thousands of healthy babies into the world since its creation.

**The Cryotop® Method offers the best proven results** on the market for vitrification of oocytes and embryos

Discover Kitazato's  
Cryotop® Method here

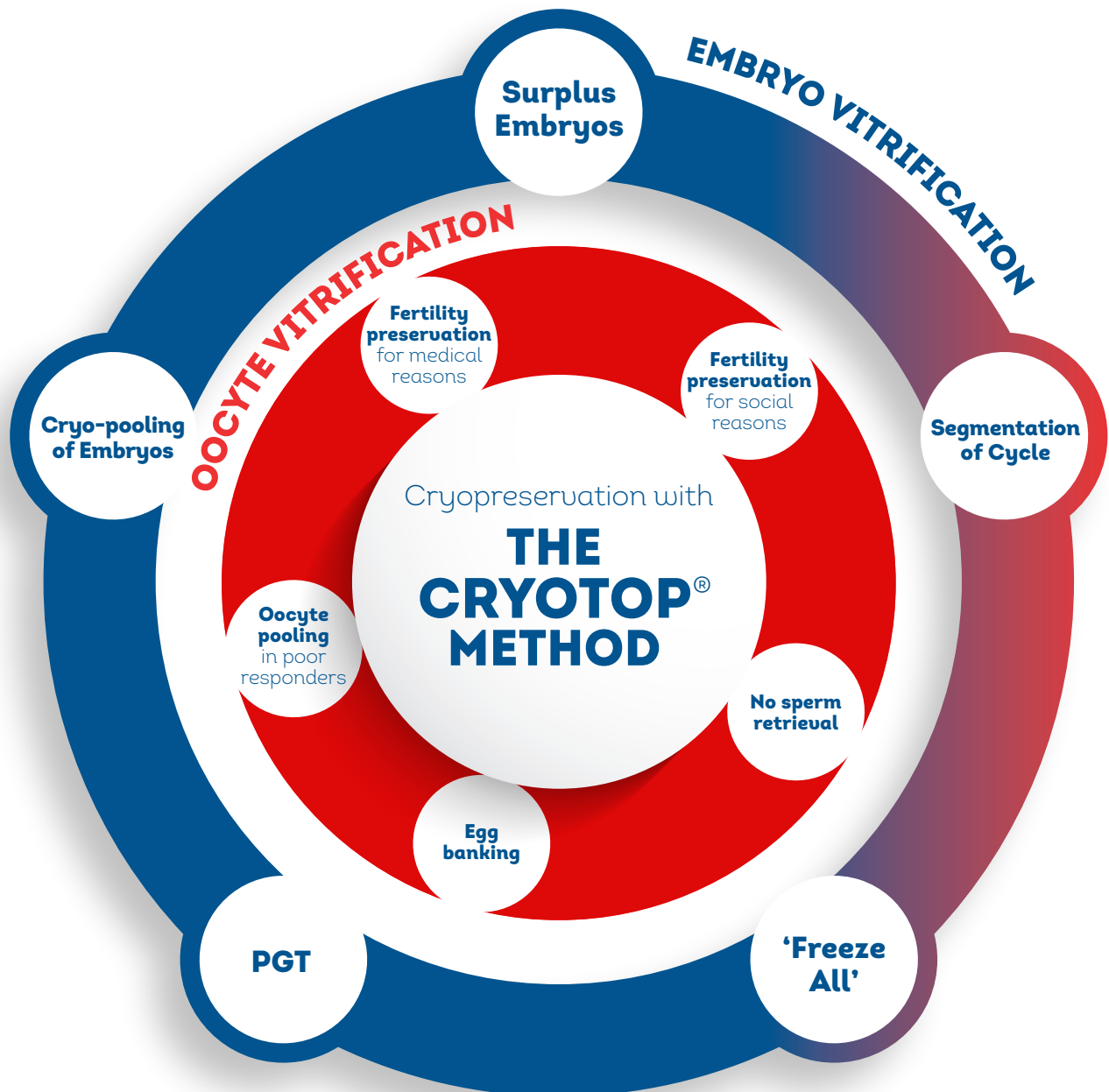


### Cryotop® Survival Rates in Human Specimens



## THE CRYOTOP® METHOD VERSATILITY

Its unique versatility makes Kitazato's Cryotop® Method the only one that can be used for numerous highly efficient cryopreservation procedures.



More information  
and materials about  
Cryopreservation with  
The Cryotop® Method



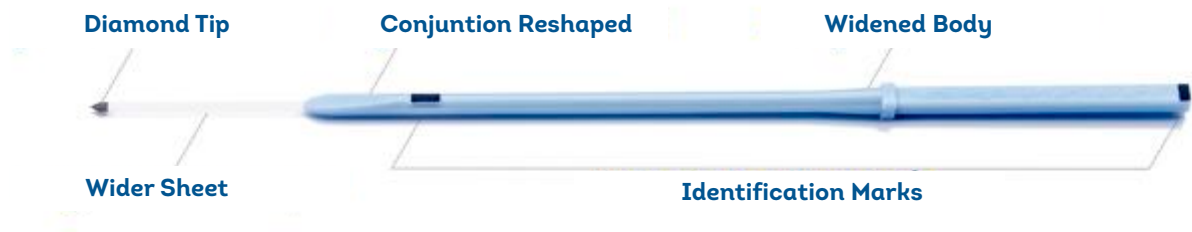
## THE CRYOTOP® METHOD

### CRYOTOP®

Cryotop® is recognized as the “Gold Standard” vitrification device consisting of a fine strip of transparent film attached to a plastic handle resistant to liquid nitrogen

Its design allows the loading of specimens for vitrification with a minimum volume (0.1 µl), providing the best cooling and warming rates on the market (-23,000 °C/minute and 42,000 °C/minute respectively) which, in turn, lead to the best survival rates.

Cryotop® optimizes space in the nitrogen tanks and, without compromising the viability of the samples, is the best option to load up to 4 specimens without affecting the survival or reproductive potential of any of them.



## Maximum storage capacity

Optimizing space in the nitrogen tanks and choosing the most appropriate vitrification device, without compromising the viability of the samples, is one of the major challenges for clinics.

Cryotop® maximizes storage capacity per goblet allowing to load up to 4 specimens per device without affecting the survival or reproductive potential of any of them.

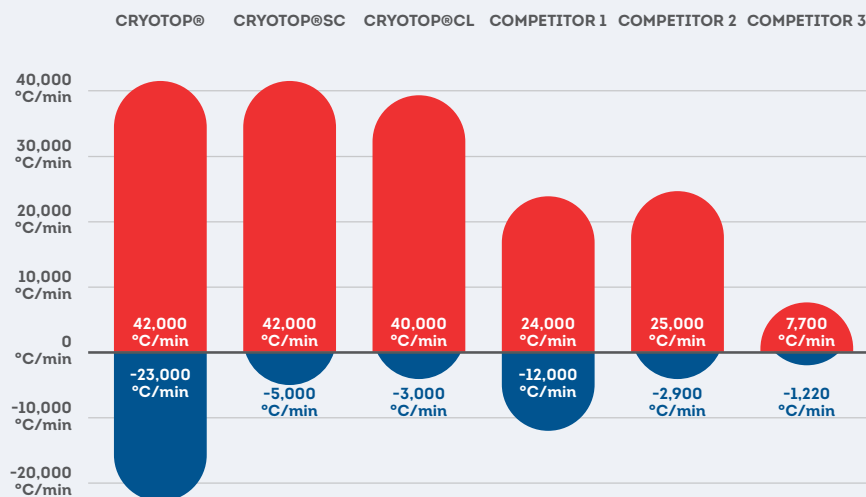
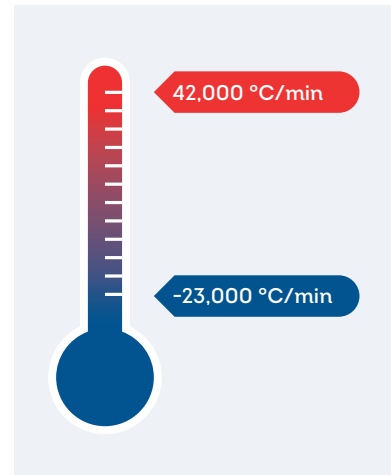
Allowing multiple vitrifications per device, in addition to the small size of the Cryotop®, has made it the most versatile and widely used vitrification device in the world.



## Highest Cooling and Warming Rates on the Market

Cooling and warming rates are essential parameters for the success of vitrification and thawing processes. These parameters, especially the warming ones, have a huge impact in specimen survival rates.

This is achieved thanks to the **design of the Cryotop® device**, with its characteristic **thin strip**, the use of **small volumes of Kitazato Vitrification Media** surrounding the specimen, and the design of the vitrification and thawing **protocols that allow excellent temperature exchanges** between the specimen and the LN2/Warming Media.



## CRYOTOP® SC

Cryotop® SC allows the device to be sealed within an outer straw. The sealed protocol ensures success during vitrification guaranteeing, at the same time, that the specimens and liquid nitrogen do not come into direct contact.

**Kitazato Closed System guarantees the best Cooling and Warming Rates among other closed vitrification carriers.**



### VITRIFICATION AND THAWING MEDIA

#### Kitazato vitrification media are the most versatile option for cryopreservation in your laboratory

Increase your efficiency by using the same media for vitrification and warming of oocytes and embryos, in all their stages of development, from zygote stage to blastocyst.

The Cryotop® Method offers the same products for both oocyte and embryo vitrification. This helps to standardize procedures, optimize laboratory routine and improve clinical results.

Kitazato media composition works effectively at room temperature, allowing convenient exchange between water and CPAs and preserving an intact cell membrane.

The only step that needs to be performed at 37°C is the first one of warming procedure.





## VITRIFICATION MEDIA

- 1 x 1.5 ml Basic Solution vial (BS)
- 1 x 1.5 ml Equilibration Solution vial (ES)
- 2 x 1.5 ml Vitrification Solution vial (VS)



## THAWING MEDIA

- 2 x 4 ml Thawing Solution vial (TS)
- 1 x 4 ml Diluent Solution vial (DS)
- 1 x 4 ml Washing Solution vial (WS)

## Kitazato media's composition is entirely synthetic

Among their components, the following are notable:

- **Hydroxypropyl cellulose (HPC)** prevents the risk of contamination, increases the survival rate in hatched blastocysts and reduces mechanical stress during warming.
- **Trehalose** functions as an osmotic agent in place of sucrose. It provides greater safety in the process, improving the protection of the cellular membranes.
- **DMSO** in combination with ethylene glycol in the media assures less toxicity and the best outcomes after warming.
- The incorporation of **gentamicin** prolongs the shelf life of the media, guaranteeing greater safety in handling the solutions.

## THE CRYOTOP® METHOD

### REPRO PLATE

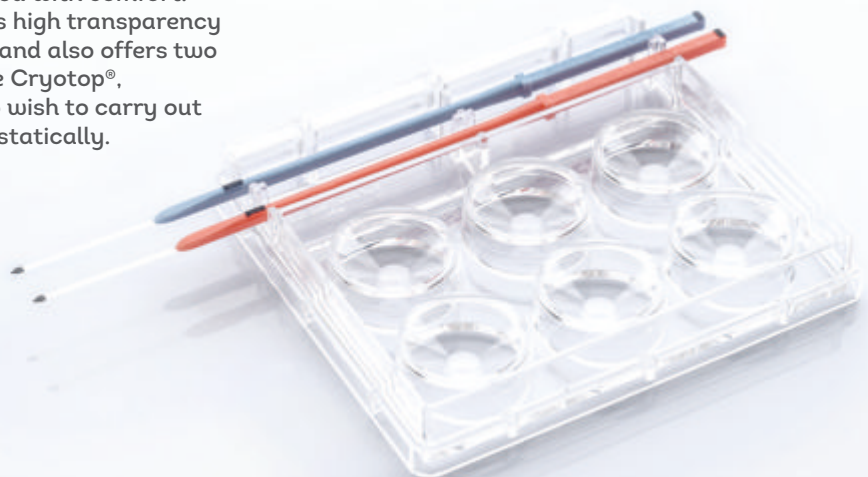
Repro Plate is a polystyrene dish specifically designed to perform **The Cryotop® Method** efficiently

- One or two rows of 3 conic-shaped wells
- Designed to accommodate the media volumes according to Kitazato vitrification and thawing protocols
- Allows to perform both vitrification and thawing procedures
- High transparency and great visibility
- Slots to secure Cryotop firmly in place



The conic-shaped well of the Repro Plate **allows gradual and stepwise addition of the solutions** during oocyte vitrification, which is the preferred and recommended method for MII oocytes. It has a flat base, which **allows the use of traceability labels**.

The Repro Plate is a conic-shaped well dish, exclusively designed to follow **The Cryotop® Method** with comfort. The Repro Plate has high transparency and great visibility and also offers two slots to support the Cryotop®, allowing those who wish to carry out loading specimens statically.



## COOLING RACK

Designed to contain the liquid nitrogen needed during vitrification.  
Inner Steel Box also available to allow sterilization before use.

Two sizes available  
to fit the needs of each laboratory



### ALUMINUM BLOCK SC



### STRAW CUTTER



### HEAT SEALER



# PRODUCT REFERENCES

## Cryotop® Open System

Order Number	Code	Description	Quantity
81111	Cryotop® - G	Green	10/pack
81112	Cryotop® - R	Red	10/pack
81113	Cryotop® - W	White	10/pack
81114	Cryotop® - B	Blue	10/pack
81115	Cryotop® - Y	Yellow	10/pack

## Cryotop® Closed System

Order Number	Code	Description	Quantity
81121	Cryotop® SC - G	Green	10/pack
81122	Cryotop® SC - R	Red	10/pack
81123	Cryotop® SC - W	White	10/pack
81124	Cryotop® SC - B	Blue	10/pack
81125	Cryotop® SC - Y	Yellow	10/pack

## Repro Plate

Order Number	Code	Description	Quantity
83016	Repro Plate-K2 (6well)	-	10/pack
83017	Repro Plate-K2 (6well)	Individually Packed	-
83018	Repro Plate-K3 (3well)	-	10/pack
83020	Repro Plate-K6 (6well)	-	10/pack
83021	Repro Plate-K6 (6well)	Individually Packed	-

## Quality control

- SAL (Sterility Assurance Level):  $10^{-6}$
- Endotoxin  $\leq 0.5$  EU/device
- MEA (Mouse Embryo Assay)
- Shelf life: 3 years

# PRODUCT REFERENCES

## Vitrification Media

Order Number	Code	Description	Quantity
91101	VT601	Vitrification Media	4 x 1.5ml
91121	VT602	Thawing Media	4 x 4ml

### Quality control

- pH tested
- Osmolality tested
- SAL (Sterility Assurance Level):  $10^{-6}$
- Endotoxin  $\leq 0,25$  EU/device
- MEA (Mouse Embryo Assay)
- Shelf life: 12 months

### Composition

- HEPES buffer
- Dimethyl sulfoxide (DMSO)
- Ethylene glycol
- Trehalose
- Hydroxypropyl cellulose (HPC)
- Gentamicin

## Accessories

Order Number	Code	Description	Quantity
84010	Cooling Rack (S)	Short	1
84014	Cooling Rack (L)	Long	1
84130	Cooling Rack Lid (S)	Short	1
84131	Cooling Rack Lid (L)	Long	1
94120	Stainless Steel Container (S)	Short	1
94121	Stainless Steel Container (L)	Long	1
84115	Aluminum Block SC	-	1
84117	Straw Cutter	-	1
84119	Heat Sealer (Plug C)	-	1

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TRAINING  
**PROGRAM**



# OUR GREATEST ACHIEVEMENT IS FOR YOU **TO OBTAIN THE BEST CLINICAL RESULTS**

Kitazato has spent over a decade investing in training and workshops around the world. Thousands of embryologists have learned the Tips & Tricks of the Kitazato Vittrification, whether at conferences, on visits to clinics, or at our reference support centers and training facilities.

We know that **The Cryotop® Method** offers the best survival results on the market, and we are committed to helping you achieve this. To do so, our trainings are always led by experienced professionals, belonging to some of the most renowned clinics in the world, supported by our team of specialized embryologists.

During our trainings, we reinforce the learning process by starting with a theoretical session followed by a hands-on one in which trainers share valuable knowledge and experiences from their daily routines that will help you master **The Cryotop® Method**. We guarantee that no question will go unanswered.

**8**

Hands-on  
workshops  
regularly led in  
8 countries

**+5,000**

Embryologists  
trained  
worldwide

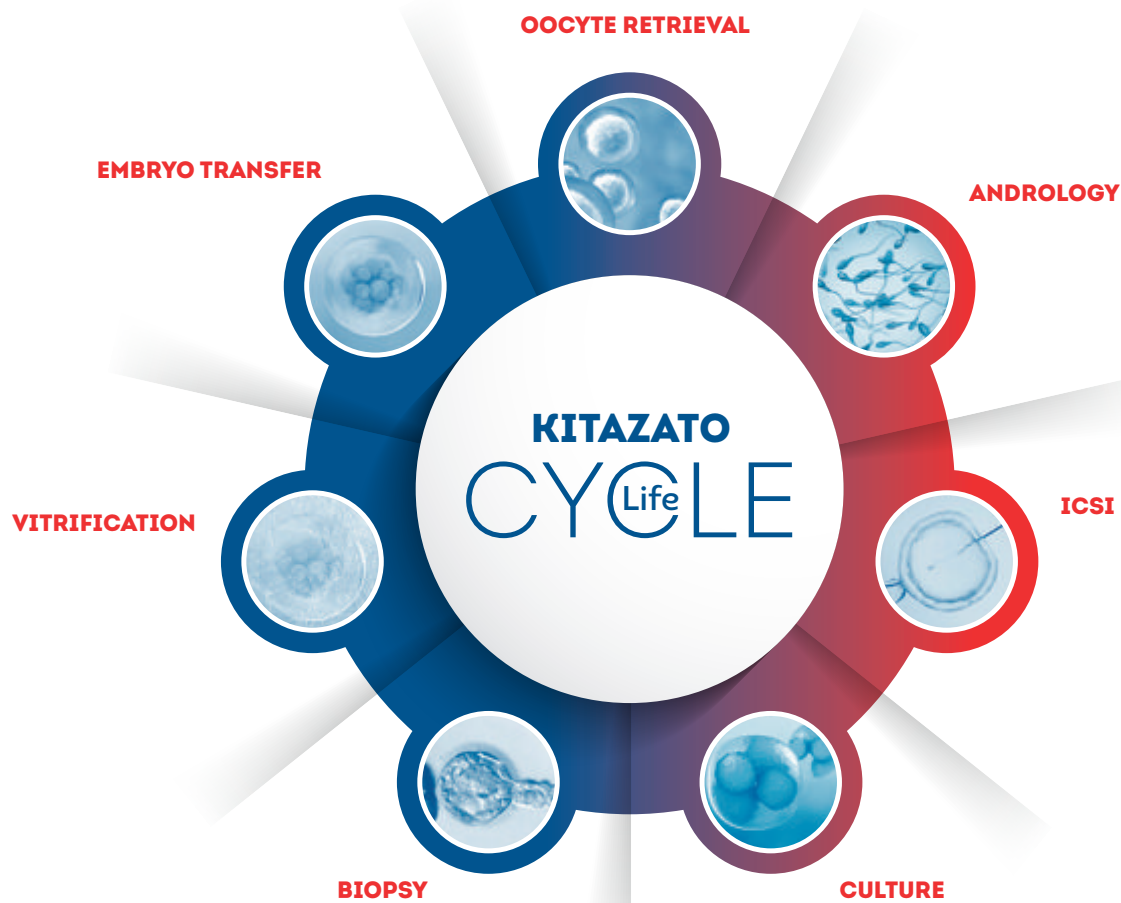
**+15**

Years  
investing in  
training &  
workshops

# THE IVF CYCLE TO MAKE LIFE HAPPEN

Kitazato offers a broad selection of quality products that maximize success at every step of the IVF LifeCycle

Learn more about  
the products  
involved in each  
IVF procedure



***KITAZATO®***



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