

## PRODUCT CATALOGUE

# Oligospermia Cryopreservation

- Freeze and thaw kit for low-count sperm and oligospermia using Cryotop®.
- Sucrose is the cryoprotectant used in the sperm freeze solution, and no Glycerol is used.
- Post-thaw sperm motility and viability can also be evaluated with the kit.
- Cryotop® -wide is available on its own in packs of 10. (REF. 81016, 81017, 81018, 81019 and 81020)



Collaborative Development: Atsushi TANAKA, MD., St. Mother Hospital Infertility Clinic / Kitazato Corporation

REF	Code	Contents	
92231	Oligospermia Cryo Kit	Cryotop®-wide (white)×2 Collagenase 0.5 mL×1	Sperm Medium 0.5 mL×1 Sperm Freeze (SF4) 0.5 mL×1
92232	Oligospermia Thawing Media	Sperm Medium 0.5 mL×1 Pentoxifylline 0.5 mL×1	HOST Solution 0.5 mL×1 PVP3% 0.5 mL×1

## COMPONENTS

Calcium Chloride / Collagenase / Gentamicin / Glucose / HEPES / Human serum albumin / Magnesium sulfate / Pentoxifylline / Polyvinylpyrrolidone / Potassium chloride / Potassium phosphate / Sodium bicarbonate / Sodium chloride / Sodium lactate / Sodium pyruvate / Sucrose

## QUALITY CONTROL

pH 7.2-7.6 / Osmolarity / Endotoxin <0.25EU/mL / Sterility Test / Mouse Embryo Assay ≥80%  
 Sperm Freeze (SF4) : Sperm Survival ≥80% / Sperm Cryosurvival ≥0.5  
 PVP3% : Sperm Motility Index  
 Pentoxifylline : Sperm Survival (24h) ≥75% / Sperm Penetration ≥3  
 Storage: 2-8°C  
 Shelf Life: 6 months (Collagenase)

## RESULT

Classified Spermatozoa	No. of patient	No. of ET cycle	Sperm collected rate ※1	Sperm survival rate ※2	2PN fertilization rate (N)	Average number of embryos transferred (min-max)	Average number of frozen embryos (min-max)
Frozen ejaculated spermatozoa	28	60	97.8% [510/521]	87.1% [444/510]a	52.7% [224/425]b	1.52 (1-2)	0.72 (0-1)
Frozen TESE spermatozoa	20	18	92.7% [152/164]	60.5% [92/152]a'	37.2% [29/78]b'	1.73 (1-2)	0.53 (0-1)
Fresh ejaculated spermatozoa	31	107	No data	No data	52.2% [302/579]	1.41 (1-2)	1.83 (0-4)

a-a' and b-b' P<0.05 (Chi-square test)

From St. Mother Hospital Infertility Clinic

※1 collected spermatozoa/ warmed spermatozoa ※2 survived spermatozoa / collected sperm

## REFERENCE

- Endo et al. Clinical and neonatal outcomes of individually vitrified human sperm with Cryotop and Cell Sleeper. Cryobiology. 2022 Oct;108:78-81.

Specification may change without pre-notice for purpose of product improvement.

## Kitazato Corporation

HEADQUARTER : 100-10 Yanagishima, Fuji, Shizuoka 416-0932 JAPAN

TOKYO : 1-1-8 Shibadaimon, Minato-ku, Tokyo 105-0012 JAPAN

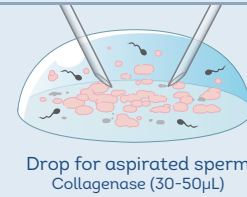
[Mail contact@kitazato.co.jp](mailto:contact@kitazato.co.jp)



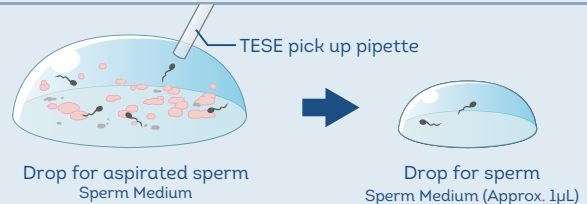
The video protocol is available on our official YouTube channel.

## Collection of low-count sperm and Freeze procedure

- With Collagenase from the Oligospermia Cyro Kit, make a drop for sperm collection on a glass bottom dish. Place the collected seminiferous tubules in the drop and cut them into small pieces using a 27G needle. \*For ejaculated sperm, start from 2.

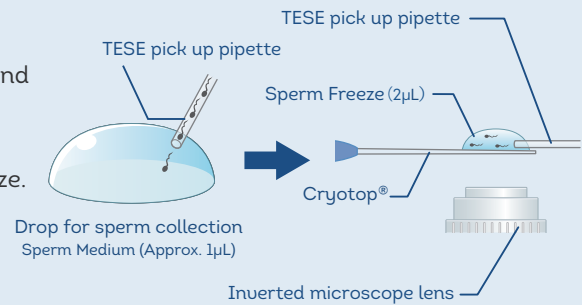


- Aspirate good sperm with a TESE pick-up pipette and transfer them into a fresh sperm collection drop of Sperm Medium.



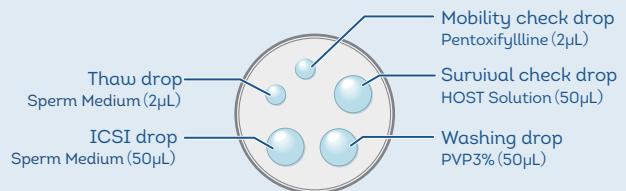
- Place both Cryotop<sup>®</sup> and the dish under an inverted microscope so that both are visible. Make a 2 $\mu$ L drop of Sperm Freeze on the Cryotop<sup>®</sup>.

Aspirate sperm from its tail with the TESE pick-up pipette and quickly transfer the sperm into the Sperm Freeze drop. Immediately place the Cryotop<sup>®</sup> on Sperm Freeze Board 2cm above LN<sub>2</sub> and expose it to the vapour for 2min to freeze. Sink the Cryotop<sup>®</sup> in LN<sub>2</sub> before cryopreservation in a LN<sub>2</sub> tank.



## Technique of low-count sperm thawing

- Prepare a dish for sperm thaw and ICSI as the figure in the right shows. Equilibrate the dish in a 5% CO<sub>2</sub> incubator for at least 2hr.



- Take out Cryotop<sup>®</sup> from LN<sub>2</sub> and air-thaw for 2sec.

Immerse the tip of the Cryotop<sup>®</sup> in the Sperm Medium drop on the dish. If sperm motility is confirmed, perform ICSI immediately.

○ If the sperm was immotile, check its motility in the Pentoxifylline drop. Perform ICSI after its motility confirmation.

○ If the sperm remained immotile in the Pentoxifylline drop, check its viability in the HOST Solution drop. Perform ICSI after its viability is confirmed.

