SAR HEALTHLINE (P) LTD

Quinn's Advantage™Sperm Freeze

For laboratory procedures only; other uses must be qualified by the end user .

Product Description	Catalogue Code	Unit Size
Quinn's Advantage™ Sperm Freeze	ART-8022	6 x 12mL

INTENDED USE

Quinn's Advantage™ Sperm Freeze is a HEPES-buffered salt solution containing 10mg/mL Human Serum Albumin, glycerol as the cryoprotective agent (CPA), and Gentamicin as an antibiotic. Glycerol has been used a cryoprotectant for human spermatozoa for nearly 50 years (*Larson et al, 1997; Quinn,1993*). Similar glycerol/ HEPES-buffered formulations demonstrated higher postthaw motility, longevity, percent survival, and ability to penetrate cervical mucus than conventional methods (*Larson et al,1997*)

COMPONENTS

Sodium chloride	Potassium chloride	Magnesium sulfate
Potassium phosphate, anhydrous	Calcium chloride, dihydrate	Sucrose
Sodium bicarbonate	HEPES	Glucose
Sodium pyruvate	Sodium lactate (DL)	Glutamine
EDTA	Gentamicin	Phenol Red
Human Serum Albumin	Glycerol	

STORAGE INSTRUCTIONS AND STABILITY

Unopened containers must be stored at 2-8°C upon receipt. Warm to incubator (37°C) temperature prior to use. Quinn's Advantage™ Sperm Freeze should be tightly capped when used in a CO2 incubator to avoid downward drifts of pH. Do not freeze or expose to temperatures greater than 39°C. The product is stable until the xpiration date shown on the label or within 30 days of the Date of First Use provided that proper aseptic procedures have been observed by the user:

A. Remove desired volume of product using aseptic procedures.

B. Once product has been removed from the original container, reseal the container to ensure a tight seal. Write the date the product was first opened on the product label. Do not use product longer than 30 days after opening the container.

C. Once removed, do not return any volume of product to the original container.

D. Once the product has been opened, store the sealed container at 2-8°C.

E. Do not use if the product becomes discoloured, cloudy, turbid, or shows any evidence of microbial contamination. One-cell MEA tested and passed with 80% or greater blastocyst. USP Endotoxin gel clot tested and passed with <1 EU/ml. A Certificate of Analysis is available for this product.

DIRECTIONS FOR USE

1. Semen samples are allowed to liquefy in an incubator at 37°C for 30 minutes after collection. Washed spermatozoa can be prepared with a density-gradient separation medium (PureCeption™ 40% or 80%) and the final washed sperm preparation resuspended in QUINN'S® Sperm Washing Medium. Alternatively, the liquefied semen sample can be cryopreserved directly.
2. Bring all reagents to room temperature (20 to 25°C) before use.

FREEZING

1. Add one volume of Quinn's Advantage™ Sperm Freeze dropwise over a30-second period to one volume of liquefied semen or washed spermatozoa solution, with continual mixing after each drop of Quinn's Advantage™ Sperm Freeze is added. It is important to add the medium dropwise over the 30-second period and to mix the Quinn's Advantage™ Sperm Freeze thoroughly after each drop is added to allow for adequate equilibration of the freezing medium with the sperm cells. Allow the Quinn's Advantage™ Sperm Freeze/sperm mixture to equilibrate for 3 minutes after all the Quinn's Advantage™ Sperm Freeze has been added.
2. Place the Quinn's Advantage™ Sperm Freeze/sperm mixture into straws or vials and cool at 0.5°C/minute from 25°C to -5°C. Hold the cryocontainer at -5°C for 3 minutes. Seed the cryocontainers manually by touching them for about 1 second with forceps precooled in liquid nitrogen. Hold the cryocontainers at -5°C for another 7 minutes. Cool the cryocontainers at 10°C/minute from -5°C to -80°C. Plunge the cryocontainers in liquid nitrogen and then transfer them to storage canes.
3. Alternatively, suspend the vials/straws on aluminium canes and immerse in a container filled with approximately 600mL of water at room temperature. Place the container of water holding the samples at 4°C in the refrigerator for 30 to 90 minutes.
4. Transfer quickly to liquid nitrogen vapor at the top of a liquid nitrogen storage tank and leave for 30 to 45 minutes. Vials should be suspended about 10 to 20cm above the surface of the liquid nitrogen. Straws should be laid horizontally at a similar height. Quickly transfer the vials/straws to final storage on labelled canes in liquid nitrogen.
5. The next day, or several hours later, thaw a test vial/straw and record all results on an appropriate report form.

THAWING, DILUTION AND WASHING

1. Thaw straws by placing them on the benchtop (22°C). Cryovials need to be agitated in a water bath at 30-35°C.
2. Transfer the thawed sperm suspension to a culture tube of adequate volume and then slowly add dropwise 10 volumes of QUINN'S® Sperm Washing Medium to the thawed sperm suspension over a 30-second period with adequate mixing to ensure complete dilution of the Quinn's Advantage™ Sperm Freeze.

Motile Spermatozoa are then recovered from the thawed, diluted suspension by density-gradient centrifugation and washing.

Each laboratory should make its own determination of which medium to use for each particular procedure.

PRECAUTIONS AND WARNINGS

Do not use medium that shows evidence of particulate matter. To avoid problems with contamination, aseptic technique should be used to remove aliquots of product from the container. Do not mix components of one container with another. Discard minimal amounts of excess medium that remain in the container after a procedure has been completed.

This product contains albumin, a derivative of human blood. All donors used in its manufacture were individually tested and found to be nonreactive for hepatitis B surface antigen (HBsAG) and antibodies to hepatitis C virus (HCV) and human immunodeficiency virus (HIV) by approved testing methods. Donors of the source material have been screened for Creutzfeld Jakob disease (CJD). Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases. A theoretical risk for transmission of CJD is also considered extremely remote. No cases of transmission of viral diseases or CJD have ever been identified for albumin.