



SPERM CRYO SYSTEM, 0.5 ml, Transparent, For Sperm Cryopreservation

A. USAGE:

- SPERM CRYO SYSTEM are specialized tool used for sperm cryopreservation in Assisted Reproductive Technologies (ART).

B. STORAGE:

- Store in a clean, dry environment, away from light and heat sources.

C. STERILITY:

- Sterile A

D. DESCRIPTION:

- Straw length 133 mm, flexible, transparent, made of high-quality materials.
- This straw is composed of two distinct sections separated by a white safety plug.

E. PRECAUTIONS:

1. Handling and storage:

- This product is for laboratory use only and should be handled by trained professionals.
- Always handle straws with cryo-safe gloves to avoid thermal injury.
- Store straws in labeled canisters within the liquid nitrogen tank to prevent misidentification.

2. Avoid overfilling:

- Overfilling straws can lead to cracking or rupture because the sample volume increase during freezing process that make excessive pressure.
- To prevent these issues, always leave a small air gap inside the straw to accommodate expansion, and begin freezing in nitrogen vapor (-80 °C to -120 °C) for gradual cooling before immersing in liquid nitrogen (-196 °C).

3. Sterility:

- Single use only.
- Avoid touching the open ends of the straw to avoid contamination.

4. Freezing process:

- Always use a gradual cooling process to prevent thermal shock and ensure sample viability.

5. Labeling:

- Use permanent, freezing resistant labels to prevent sample data under freezing conditions.

6. Equipment safety:

- Use appropriate safety equipment when working with liquid nitrogen to avoid burns.

F. PROCEDURES:

1. Preparation:

- Collect and evaluate the sample for quality, adjusting it with a cryoprotective freezing medium to protect sperm cells during freezing.
- Verify that the straws are sterile and the package is intact before use.
- Ensure all tools and cryoprotective agents are pre-prepared and at the required temperatures.
- Maintain an aseptic environment to avoid contamination.

2. Filling & Sealing:

- Fill straws with sample and seal them, ensuring proper labeling with details and freezing date.
- Load the sample (e.g., semen sample) using a filling nozzle and a micro-aspirator or a syringe with a specific fitting.
- Do not fill the straw completely, leave a small air gap inside the straw (about 10 % of the volume) to accommodate expansion during freezing.
- The sample should rise through the white safety plug up to half of the powder.
- Seal both ends of the straw securely using a heat sealer.
- Label each straw clearly with sample ID, date, and any other necessary information.

3. Freezing:

- Place straws horizontally in a controlled freezing device or in nitrogen vapor (-80 °C to -120 °C) for 15 – 30 minutes.
- Transfer the straws into liquid nitrogen tank (-196 °C) for long term storage.

4. Thawing:

- Retrieve the straw carefully from the liquid nitrogen using cryo-safe gloves and tools.
- Place the straw in a water bath at the appropriate thawing temperature (e.g., 37 °C) for a few seconds.
