For assisted reproductive procedures.

Glossary of Symbols*:

- **REF**: Catalog Number
- **LOT**: Lot Number
- **STERILE A**: Sterilized using aseptic processing techniques (filtration)
- **Expiration**: Year - Month - Day
- **Caution, consult accompanying documents**: Storage Temperature
- **Manufacturer**: Irvine Scientific®
- **Do not resterilize**: Do not use if package is damaged
- **Rx Only**: Caution: Federal law restricts this device to sale by or on the order of a licensed healthcare practitioner.

*Symbol Reference - EN ISO 15223-1, Medical devices – Symbols to be used with medical device labels, labeling.


INDICATIONS FOR USE
Continuous Single Culture®-NX (CSCM-NX) is intended for use as a culture medium for human gametes and embryos from fertilization through day 5/6 of development in vitro.

QUALITY ASSURANCE
CSCM-NX is membrane filtered and aseptically processed according to manufacturing procedures which have been validated to meet a sterility assurance level (SAL) of 10^3.

Each lot of CSCM-NX is tested for:
Endotoxin (LAL): < 0.25 EU/mL
One-Cell MEA ≥80% expanded blastocyst at 96 hours
Sterility by the current USP Sterility Test <71>
Human Sperm Survival Assay ≥70% of original motility at 24 hours

All results are reported on a lot specific Certificate of Analysis which is available upon request.

COMPOSITION:

<table>
<thead>
<tr>
<th>Salts &amp; Ions</th>
<th>Amino Acids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Chloride</td>
<td>Alanine</td>
</tr>
<tr>
<td>Magnesium Sulfate</td>
<td>Arginine</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>Asparagine</td>
</tr>
<tr>
<td>Potassium Phosphate</td>
<td>Aspartic Acid</td>
</tr>
<tr>
<td>Sodium Chloride</td>
<td>Cystine</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>Glutamic Acid</td>
</tr>
<tr>
<td>Energy Substrates</td>
<td>Glycine</td>
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<tr>
<td>Dextrose</td>
<td>Histidine</td>
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<tr>
<td>Sodium Lactate</td>
<td>Isoleucine</td>
</tr>
<tr>
<td>Sodium Pyruvate</td>
<td>Leucine</td>
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<tr>
<td>Antioxidant</td>
<td>Lysine</td>
</tr>
<tr>
<td>EDTA</td>
<td>Methionine</td>
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<tr>
<td>Sodium Citrate</td>
<td>Phenylalanine</td>
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<tr>
<td>Dipeptide</td>
<td>Proline</td>
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<tr>
<td>Alanyl-glutamine</td>
<td>Prolin</td>
</tr>
<tr>
<td>Antibiotic</td>
<td>Serine</td>
</tr>
<tr>
<td>Gentamicin (10µg/mL)</td>
<td>Thrreonine</td>
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<tr>
<td></td>
<td>Tryptophan</td>
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<tr>
<td></td>
<td>Tyrosine</td>
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<tr>
<td></td>
<td>Valine</td>
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</table>

BUFFER SYSTEM
CSCM-NX uses sodium bicarbonate as a buffering system. This is specifically designed for use in a CO₂ incubator.

DIRECTIONS FOR USE

PROTEIN SUPPLEMENTATION
CSCM-NX does not contain protein components. General laboratory practice includes protein supplementation when using this medium. The amount of protein supplementation may vary among laboratories and is dependent on the phase of processing/growing the gametes and embryos. Consult your individual laboratory protocols.

The following are recommendations for protein supplementation based upon the indications for use of the CSCM-NX:

For Fertilization and Embryo Culture:
When using Irvine Scientific Human Serum Albumin (HSA), a 100 mg/mL solution, use at 5 mg/mL. For 10 mL of medium, add 0.5 mL of HSA solution to 9.5 mL of the medium. When using Irvine Scientific Serum Substitute Supplement (SSS), a 60 mg/mL protein solution, use at 10% (v/v). For 10 mL of medium, add 1.0 mL SSS to 9.0 mL of medium.

EQUIVLABRATION
CSCM-NX (supplemented with protein) should be pre-warmed to 37°C and equilibrated to the desired pH overnight in a 5-6% CO₂ incubator prior to use. A sufficient volume of protein supplemented medium is required so that oocyte recovery, insemination and embryo culture dishes can be prepared.

The following are general procedures for the indications for use of CSCM-NX:

Fertilization:
On the day before oocyte retrieval, prepare oocyte collection and insemination dishes with pre-supplemented CSCM-NX overlayed with oil and pre-equilibrate overnight to 37°C in a CO₂ incubator. Immediately upon oocyte collection and identification, place oocytes into the oocyte collection dish with pre-equilibrated medium and return to the incubator for the desired period (1-4 hours) prior to insemination by conventional IVF or ICSI.

Conventional IVF (use insemination dishes):
1. It is recommended to aseptically dispense 50,000-100,000/mL motile sperm per microdroplet containing 1-3 oocytes.
2. Return the insemination dish to the incubator and check for normal fertilization 16-20 hours post insemination.

Intracytoplasmic Sperm Injection (ICSI):
1. Following at least 1 hour post oocyte denuding (and no more than 4 hours following oocyte retrieval), remove denuded oocytes from incubator and inseminate with sperm per standard ICSI protocol for your individual laboratory.
2. Immediately following insemination, place 1-3 inseminated oocytes into a fresh drop of the pre-equilibrated insemination dish, return dish to the incubator and check for normal fertilization 16-20 hours post insemination.

Embryo Culture:
On the day of fertilization (one day prior to fertilization assessment), prepare embryo culture dishes with pre-supplemented CSCM-NX overlayed with oil and pre-equilibrate overnight to 37°C in a 5-6% CO₂ incubator.

Following fertilization assessments with the identification of the presence of normal fertilization (two pronuclei and two polar bodies), transfer 2PN zygotes into the pre-equilibrated CSCM-NX culture dish previously prepared. It is recommended to allow the embryos to grow in a continuous, uninterrupted culture system without changing medium, until the desired developmental stage is reached (up to day 5/6 of development).

If medium change is desired for embryo culture beyond day 3, after 48 hours of embryo culture (of the fertilized embryos), the embryos should be transferred into a new dish of fresh pre-equilibrated CSCM-NX (pre-supplemented with protein).

For additional details on the use of these products, each laboratory should consult its own laboratory procedures and protocols which have been specifically developed and optimized for your individual medical program.

STORAGE INSTRUCTIONS AND STABILITY
Store the unopened bottles refrigerated at 2º to 8ºC.

Do not freeze or expose to temperatures greater than 39°C.

Duration Following Bottle Opening:
The product without protein supplement should be used within four (4) weeks from opening.

PRECAUTIONS AND WARNINGS
This device is intended to be used by staff trained in assisted reproductive procedures. These procedures include the intended application for which this device is intended.

The user facility of this device is responsible for maintaining traceability of the product and must comply with national regulations regarding traceability, where applicable.

Do not use any bottle of medium which shows evidence of particulate matter, or cloudiness.

CAUTION: To avoid problems with contamination, handle using aseptic techniques and discard any excess medium that remains in the bottle or vial after the procedure is completed.

Not for injection use.

CONTRAINDICATION
CSCM-NX contains the antibiotic Gentamicin Sulfate. Appropriate precautions should be taken to ensure that the patient is not sensitized to this antibiotic.