

## Acidified Medium pH2.3-2.5 in HEPES-HTF with PVP

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

Product Description	Catalogue Code	Unit Size
Acidified Medium pH2.3-2.5 in HEPES-HTF with PVP	RM-ART-4013-A	6 x 1.0mL

### INTENDED USE

The zona pellucida, an acellular structure surrounding the cells of the preimplantation embryo, can be dissolved at an acidic pH of 2.3 to 2.5. It has been suggested that one of the detrimental effects of in vitro culture is to cause an excessive hardening of the zona pellucida that may impede or slow the required emergence of the blastocyst-stage embryo from the zona pellucida prior to implantation. To alleviate this problem, a portion of the zona pellucida can be dissolved by carefully directing a stream of acidified medium over a specific area using a small micropipette (Cohen, Malter, Talansky & Grifo. *Micromanipulation of Human Gametes and Embryos*. New York, NY: Raven Press; 1992)

### COMPONENTS

The product consists of an aqueous, complex mixture of organic and inorganic salts and simple carbohydrates, at acidic pH intended for dissolution of the zona pellucida surrounding mammalian oocytes and preimplantation embryos. Contains 4mg/mL polyvinylpyrrolidone (MW 40,000), 0.010mg/mL Gentamicin, and 0.003mg/mL phenol red as a pH indicator.

### STORAGE INSTRUCTIONS AND STABILITY

Store unopened containers at or below -20°C upon receipt. Warm to incubator (37°C) temperature prior to use. Do not refreeze or expose to temperatures greater than 39°C. The product is stable until the expiration 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:

- Remove desired volume of product using aseptic procedures
- 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.
- Once removed, do not return any volume of product to the original container.
- Once the product has been opened, store the sealed container at 2-8°C
- 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

Embryos should be clamped and held with a microholding pipette in a drop of Quinn's Advantage™ Medium with HEPES containing 5mg/mL HSA under sterile oil. A micropipette filled with acidified medium is lowered into the drop and the acidified medium is gently expelled over a small 35- to 50-µm area while holding the needle tip immediately next to the zona pellucida. The size of the hole should be about ½ to ⅔ the length of an 8-cell blastomere. Use small circular motions to avoid excess acid in a single region. Immediately cease expulsion of acidic medium when the inside of the zona pellucida is pierced and move the embryo away from the acidic medium to the opposite side of the drop.

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

Information on specific aspects of IVF and embryo culture is available in our publication "IVF Laboratory Policy and Procedure Manual".

### PRECAUTIONS AND WARNINGS

Do not use medium that shows evidence of particulate matter, cloudiness, or is not rose coloured.

To avoid problems with contamination, practice aseptic technique and discard minimal amounts of excess medium remaining in the bottle.

### RELATED PRODUCTS

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