SAGE® Vitrification Solution

*Media enables ultra-rapid cooling and recovery of human blastocysts*

The SAGE Vitrification solutions enable ultra-rapid cooling and recovery of human blastocysts, which eliminates ice crystal formation, resulting in increased human blastocyst survival rates.

*Cryopreservation of the embryo is an important component in IVF clinics today, including reduction of costs and improvement in cumulative pregnancy rates.

There are two methods used today: Slow Freeze/Rapid Thawing, and Ultra-Rapid Freezing known as Vitrification. A major concern in conventional slow freezing is the formation of ice crystals during the cooling process. Ice crystal formation, as well as the chilling effects seen with slow cooling, can damage cells and may exacerbate the toxicity of cryoprotectants, leading to fracture damage and other lethal injuries. Depending on the rate of cooling, the Slow Freezing procedure is a somewhat longer process.

With vitrification, ice crystal formation is eliminated, resulting in increased human blastocyst survival rate of approximately 96% vs. 91% for slow freezing. During vitrification, embryos are chilled from room temperature to -196°C in a matter of seconds without any intervening ice crystal formation. “Our MOPS-buffered formulation of HTF Medium, upon which the SAGE Vitrification Solutions are based, uses proven formulation strategies consistent with the Quinn’s Advantage® Series of ART products,” says Patrick Quinn, Vice President of Research and Development for SAGE In Vitro Fertilization.

The SAGE Vitrification (ART-8025) includes: Equilibration Solution – a MOPS-buffered solution of modified HTF containing non-essential and essential amino acids, gentamicin sulfate (0.01 g/L), 7.5% (v/v) each of DMSO and ethylene glycol and 12 mg/mL Human Albumin. Vitrification Solution – a MOPS-buffered solution of modified HTF containing non-essential and essential amino acids, gentamicin sulfate (0.01 g/L), 15% (v/v) each of DMSO and ethylene glycol, 0.6 M sucrose and 12 mg/mL Human Serum Albumin. The SAGE Vitrification Kit (ART-8025) is designed to be used in conjunction with the SAGE Vitrification Warming Kit (ART-8030) for warming and recovery of specimens.

The SAGE Vitrification Warming Kit includes: 1.0 M Sucrose Warming Solution, a 0.5 M Sucrose Warming
Solution and a MOPS-buffered solution, all of which are based on a MOPS-buffered solution of modified HTF containing non-essential and essential amino acids, gentamicin sulfate (0.01 g/L) and 12 m/L Human Serum Albumin.

The SAGE Vitrification Solutions join a family of cryopreservation media including the CSC (Choline Substituted Cryopreservation) Solution (ART-8017 & ART-8018), Quinn’s Advantage Embryo Freeze Kit (ART-8014), Quinn’s Advantage Blastocyst Freeze Kit (ART-8015) and Quinn’s Advantage Thaw Kit (ART-8016).

Footnote:
