



**SAR HEALTHLINE (P) LTD**

## **Quinn's Advantage™ SPS Serum Protein Substitut**

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

<b>Product Description</b>	<b>Catalogue Code</b>	<b>Unit Size</b>
Quinn's Advantage™ SPS Serum Protein Substitut	ART-3010	12x 12mL
Quinn's Advantage™ SPS Serum Protein Substitut	ART-3011	1x 100mL

### **INTENDED USE**

A variety of protein supplements have been added to ART media, ranging from maternal serum to preparations of albumin purified to varying degrees to plasma expanders such as Albuminar, Plasmatein and Plasmanate (*Weathersbee et al,1995; Adler et al,1993*). The routine functions of albumin in tissue culture include trace metal binding, osmotic stability and carrier activity. In addition to these beneficial effects of albumin on cellular physiology, it is thought that the presence of alpha -and beta globulins in certain preparations of plasma expanders provides additional benefits for the culture of preimplantation mammalian embryos in vitro (*Pool & Martin, 1994*).

These additional benefits have been ascribed to the high content of polyhydroxy domains present in the alpha -and beta globulins producing a weak gel-like environment that enhances embryonic development (*Weathersbee et al, 1995*).

A protein supplement and possibly any bound embryotrophic components associated with it is still necessary, however, to enhance blastocyst production in vitro (*Pool et al,2000*). Quinn's Advantage® SPS is a protein supplement that provides the beneficial growth-promoting activities of albumin alpha -and beta -globulins.

### **DESCRIPTION**

Product contains 50mg/mL total protein (weight/volume) in saline solution; the protein is in the form of 88% normal human serum albumin and 12% alpha -and beta-globulins. Each lot is tested for pH ( $7.4 \pm 0.2$ ), osmolality ( $280 \pm 10\text{mOsm/kg}$  water), sterility (no detectable contamination), and biocompatibility (>80% mouse zygote development to blastocysts). 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.

### **STORAGE INSTRUCTIONS AND STABILITY**

Store unopened containers refrigerated at 2-8°C. Warm to ambient or incubator (37°C) temperature prior to use. Do not freeze 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:

- 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**

**For sperm preparation and embryo culture:** Use at 10% (v/v). For 10mL of medium, add 1.0mL of SPS solution to 9.0mL of bicarbonate-buffered medium (eg, Quinn's Advantage® Fertilization Medium) or Quinn's Advantage® Cleavage Medium. *NOTE:* for washed sperm samples for IUI use QUINN'S™ Sperm Washing Medium which already contains 5mg/mL Human Serum Albumin.

**For embryo transfer:** Use at 50% (v/v). For 10mL of medium add 5.0mL of SPS solution to 5.0mL of Quinn's Advantage® medium with HEPES.

**For embryo cryopreservation:** Use at 20% (v/v). For 10mL of medium add 2.0mL of SPS solution to 8.0mL of Quinn's Advantage® medium with HEPES.

**For micromanipulation(ICSI and assisted hatching):** Use at 10% (v/v). For 10mL of medium, add 1.0mL of SPS solution to 9.0mL of Quinn's Advantage® Medium with HEPES.

**Laboratories may establish through appropriate testing that higher or lower concentrations than those suggested above are optimal for specific applications.**

**NOT INTENDED FOR INJECTION BY USUAL PARENTERAL ROUTES IN HUMANS OR ANIMALS**

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

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