



## CRYOVIVE™ 5% or 2% DMSO

### STERILE, CHEMICALLY DEFINED, ANIMAL ORIGIN-FREE (cdAOF) CELL CRYOPRESERVATION MEDIUM

50 mls Liquid Per Bottle. Contains 5 or 2 percent DMSO. Product number: AVBP-001 (5% DMSO) and Product number: AVBP-090 (2% DMSO), respectively.

**Customer Support:** Call +1 (206) 823-5895, email [info@avantbio.com](mailto:info@avantbio.com) or visit [www.avantbio.com](http://www.avantbio.com).

### PRODUCT DESCRIPTION

CRYOVIVE™ is a physiologically-buffered, sterile, defined, animal origin-free, serum-free liquid cryopreservation medium containing 5% or 2% dimethylsulfoxide (DMSO). CRYOVIVE™ contains only USP-certified and other high-quality ingredients. CRYOVIVE™ does not contain undefined products, or any animal or human-derived products.

### INTENDED USE

CRYOVIVE™ is intended for low temperature freezing and storage of mammalian cells or tissue in the liquid nitrogen (LN<sub>2</sub>) vapor-phase (-196 °C). **This product is for laboratory research use only and is not intended for use in animals, humans, or for use in diagnostic procedures.** CAUTION: CONTAINS DMSO. Take appropriate precautions regarding the proper use and disposal of DMSO containing solutions. When handling this product, wear of protective clothing and eye wear. Dispose of CRYOVIVE™ properly.

### STORAGE AND STABILITY

**CRYOVIVE™ should be stored at -20 °C and thawed before use. Upon thawing CRYOVIVE should be**

**mixed by swirling the bottle, and then stored at 2–8 °C, in the dark thereafter.** CRYOVIVE™ should not be freeze thawed. Protect CRYOVIVE™ from excessive heat and UV or visible light. CRYOVIVE is guaranteed for 6 months at 2–8 °C and 18 months at -20 °C.

### INSTRUCTIONS FOR USE

1. Store CRYOVIVE™ at 2–8 °C until it is ready for use. To help maintain sterility, wipe down outside of bottle in a sterile field with 70% ethanol before removing the lid. The contents are sterile. If the seal has been broken or tampered, do not use. Gently mix (swirl) CRYOVIVE™ medium prior to use.
2. If your cells are adherent, enzymatically remove the cells from their subculture surface using dAOF cell dissociation reagents (TrypLE™ Select, Life Technologies cat. no. 12563-029). Collect and pellet the cells using centrifugation. After removing the supernatant, resuspend the cell pellet in cold (2–8 °C) CRYOVIVE™ medium and store cells temporarily at 2–8 °C (e.g., on ice). If required, rapidly count viable and non-viable cells, and adjust volume to obtain the desired cell concentration, typically 4 x 10<sup>5</sup> to 4 x 10<sup>6</sup> cells/ml.
3. Quickly distribute the cell suspension (typically 0.5–2 mls) into cooled cryopreservation vials and immediately cool each vial of cells to 2–8 °C.
4. Cryopreserve the cells by controlled temperature reduction (descent) to the LN<sub>2</sub> vapor-phase temperature. It is recommended that you follow a standard slow-rate (e.g., 1 °C/min), controlled cooling protocol to the LN<sub>2</sub> vapor-phase temperature. If precise controlled rate cooling is not possible in your laboratory, the cells can be cryopreserved by placement of the cells in a controlled cooling enclosure (e.g., Nalgene-Nunc Mr. Frosty) pre-equilibrated at 4°C that is placed at -80°C or -78.5 °C for 3-4 hrs., which is then followed by storage of the cells in the vapor-phase of LN<sub>2</sub>.
5. Following cryopreservation in CRYOVIVE™, for recovery, the cells should be rapidly warmed with gentle shaking in a 37 °C water bath, just until all visible ice melts (2-3 minutes maximum). Do not allow cells to incubate for prolonged periods of time at 37 °C or room temperature. **Immediately dilute cells (2-fold) in cell culture medium** and temporarily store cells at 2–8 °C (e.g., on ice) before placing into subculture. If required, rapidly count viable and non-viable cells (e.g., trypan blue exclusion) while the cells are on ice and subculture cells at the desired density using your individual protocol. When placed into subculture, CRYOVIVE™ cell suspensions should be diluted at least a 75-fold.



## AVANTBIO LIMITED USE AGREEMENT

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