

HypoThermosol® and CryoStor™ Suggested Uses

Our HypoThermosol® and CryoStor™ solutions can be utilized for several different processes depending on the tissue size and configuration.

- I. Tissues and Organs – In the case of samples where there is “intact” vasculature and cannulation and perfusion is a viable option, we recommend just that. Gently flushing the tissue (such as blood vessels, hearts, livers, etc.) with the HypoThermosol® Purge solution (at room temp) to remove the native fluids in the sample prior to introduction of the preservation solution is the most effective method for preparing the tissue for preservation. Once the sample is perfused with the Purge solution, a second “perfusion” is performed with either chilled (2-8°C) HTS-FRS or CryoStor™ solutions prior to cold or frozen storage of the samples.
- II. Tissue samples and Biopsies – In these cases where vasculature and perfusion is not a real option, we recommend a simple rinsing/soaking of the tissue for a few minutes in the Purge solution prior to transfer to the preservation solution of choice (HTS-FRS for hypothermic storage and CryoStor™ for cryopreservation).
- III. Here are a few examples of how groups are using the solutions:
 - a. There is a group that is using the HTS-Purge and CryoStor™ combination for cryopreservation of heart valves and blood vessels. They are using the purge solution in a vigorous agitation wash step in their tissue prep process followed by transfer to CryoStor™ then 30 min incubation in the refrigerator (2-8°C) than freezing the samples.
 - b. There are a number of groups that are using the Purge and HTS-FRS combination for the hypothermic storage of whole organs, such as hearts and livers, for cell isolation process. In this case the tissues are being gently perfused with Purge following harvest then the purge is replaced with HTS-FRS through another round of perfusion. The tissues are then placed into cold storage.
 - c. We have done some work with blood vessels and in those cases we rinsed/bathed the vessel in the Purge solution for 3-5 minutes then transferred the vessel to CryoStor™ CS-10 and froze them.
 - d. For biopsy applications (which would probably apply to tissues such as ligaments, tendons, and cartilage), there are a few groups that place the biopsy into purge for 3-5 min then transfer into cold HTS-FRS for storage.

For questions regarding this protocol or immediate assistance, please call BioLife Solutions Research and Technical Personnel at (866)-4BIOLIFE (866-246-5433)

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