

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 PrepaStor[®] solution (at room temperature) 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 PrepaStor solution, a second “perfusion” is performed with either chilled (2-8°C) HypoThermosol FRS (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 PrepaStor solution prior to transfer to the preservation solution of choice (HTS-FRS for hypothermic storage and CryoStor for cryopreservation).
- III. Here are a few samples of how groups are using the solutions:
 - a. One example is using the PrepaStor and CryoStor combination for cryopreservation of heart valves and blood vessels. PrepaStor is used in a vigorous agitation wash step in the tissue prep process followed by transfer to CryoStor, then 30 minutes incubation in the refrigerator (2-8°C), and then freezing the samples.
 - b. Another example is using the PrepaStor and HTS-FRS combination for the hypothermic storage of whole organs, such as heart and livers, for cell isolation process. In this case the tissues are gently perfused with PrepaStor following harvest, and then the PrepaStor 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 vessels in the PrepaStor solution for 3-5 minutes then transferred the vessels to CryoStor CS10 and froze them.
 - d. For biopsy applications (which would probably also apply to tissues such as ligaments, tendons, and cartilage), the biopsy may be placed into PrepaStor for 3-5 minutes, and then transferred into cold HTS-FRS for storage.

For questions regarding this protocol or immediate assistance, please call
BioLife Solutions Research and Technical Personnel at 866-424-6543.