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UPitt TriState SenNet TMC Cryopreserved Tissue Grinding

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TriState SenNet

Cellular Senescence Net...



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We use this protocol and it's working

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Abstract

This document outlines the tissue pulverization protocol of lung and heart specimens at the TriState SenNet TMC Biospecimen Core at the University of Pittsburgh, as part of the Cellular Senescence Network Program (SenNet).

Guidelines

Ensure the samples are kept frozen on dry ice throughout pulverization.

Troubleshooting



Safety warnings

- ⚠ Use universal safety precautions when handling human samples and personal protective equipment (e.g., face mask with shield, gloves, lab coat or apron).

Before start

- Use clean and/or autoclaved tools.
- Use RNAZap over all surfaces and be aware of cross-contamination sources.



Tissue pulverization

- 1 Pour liquid nitrogen into a mortar and pestle until frozen.
- 2 Remove tissue from tube and place into liquid nitrogen with a clean cold spatula (precool in liquid nitrogen).
- 3 Grind up the sample with liquid nitrogen using the mortar and pestle.
- 4 Use a clean cold spatula to scoop ground tissue to 1.5 mL LoBind tube (Eppendorf).
- 5 Place the sample back onto dry ice or directly to -80 °C.
- 6 Clean the mortar and pestle with 10% bleach and 70% ethanol before using it for the next sample.