



May 02, 2021

# Tissue freezing in Cryostor solution + processing

Regina Hoo<sup>1</sup>, Carmen Sancho<sup>1</sup>, Roser Vento-Tormo<sup>2</sup><sup>1</sup>Sanger Institute; <sup>2</sup>Wellcome Sanger Institute

1 Works for me dx.doi.org/10.17504/protocols.io.bgsnjwde

Vento-Tormo  
Tech. support email: [rv4@sanger.ac.uk](mailto:rv4@sanger.ac.uk)

Regina Hoo

## ABSTRACT

Tissue freezing in cryostor solution and recovery for tissue processing

## DOI

[dx.doi.org/10.17504/protocols.io.bgsnjwde](https://dx.doi.org/10.17504/protocols.io.bgsnjwde)

## PROTOCOL CITATION

Regina Hoo, Carmen Sancho, Roser Vento-Tormo 2021. Tissue freezing in Cryostor solution + processing.  
**protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.bgsnjwde>

## LICENSE

————— This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

## CREATED

May 22, 2020

## LAST MODIFIED

May 02, 2021

## PROTOCOL INTEGER ID

37422

## MATERIALS TEXT

### MATERIALS

☒ FBS Invitrogen - Thermo Fisher☒ RPMI 1640 Medium Thermo Fisher

Scientific Catalog #11875093

☒ Cryostar CS10 Sigma

Aldrich Catalog #C2874

- 1 Chill Cryostor solution (CS10) on ice (C2874-Sigma).
- 2 Most tissue is collected in Hyperthermosol and kept on ice or at  $-4^{\circ}\text{C}$ .

- 3 Place tissue in petri dish, add enough ice cold RPMI/10% FBS to cover the tissue (depend on tissue size).
- 4 Mince tissue with 2 scapels, just like what we would do for enzymatic digestion.
- 5 Carefully transfer minced tissue into a 50ml falcon tube.
- 6 Wash and rinse the petri dish with plenty of RPMI/10% FBS.  
Transfer the RPMI/10%FBS and remaining tissue pieces into the falcon tube.
- 7 Centrifuge at 1500 rpm for 3 minutes.
- 8 Discard supernatant.
- 9 Resuspend the tissue in 1 ml of ice cod CS10 and transfer into a cryovial.
- 10 Rinse the falcon tube with 0.8 ml of extra cold CS10 and transfer into the cryovial.
- 11 Place cryovial in CoolCell and leave in  $-80^{\circ}\text{C}$  freezer overnight.
- 12 Remove cryovial from CoolCell next day, and store cryovial in designated box in  $-80^{\circ}\text{C}$  .
- 13 To process cryopreserved tissue, thaw cryovials in water bath at  $37^{\circ}\text{C}$  .
- 14 Transfer thawed tissue into a falcon tube containing 20ml warm RPMI/10% FBS.
- 15 Centrifuge at 500 x g for 4 minutes.

16 Discard supernant. Proceed with preferred tissue digestion protocol