

# Filtering for Cell Collection

SangHoon Lee

## Abstract

Filtering protocol adapted from SangHoon Lee

**Citation:** SangHoon Lee Filtering for Cell Collection. **protocols.io**

[dx.doi.org/10.17504/protocols.io.dmb42m](https://dx.doi.org/10.17504/protocols.io.dmb42m)

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## Guidelines

Filtering protocol adapted from SangHoon Lee

### Materials needed for cruise:

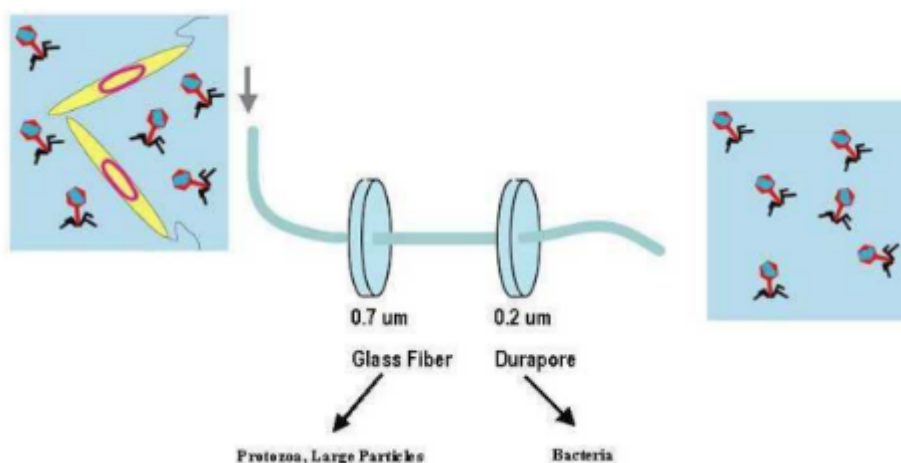
4 acid washed 20L cubitainers

8 60cm pieces of acid washed tubing

Gloves

Sharpie

2 coolers large enough to hold all 4 cubitainers



## Protocol

### Filtering Protocol

#### Step 1.

Pump → Steel filter tank → A/E filter → Durapore → DI rinsed cubie container (the one the sample was in)

### Filtering Protocol

## Step 2.

Clamp all tubes to manifolds and filter tanks

### Filtering Protocol

## Step 3.

Make sure bleeder valves are on top

### Filtering Protocol

## Step 4.

Turn on pump and then bleed A/E then Durapore and the A/E again

### 🔌 NOTES

**Jed Fuhrman** 10 Aug 2015

Turn manifold on side, bleeder valves should be on highest side of manifold.

### Filtering Protocol

## Step 5.

Keep cubie container on ice- water will be used for viral concentration

### 🔌 NOTES

**Jed Fuhrman** 10 Aug 2015

When finished filtering: KEEP PUMP ON UNTIL ALL FILTERS HAVE BEEN REMOVED

### Filtering Protocol

## Step 6.

Place “out” tube from Durapore onto a filter flask that is attached to the vacuum side of the pump

### 🔌 NOTES

**Jed Fuhrman** 10 Aug 2015

Make sure white trap is on tube so no seawater can get into the pump.

### Filtering Protocol

## Step 7.

Wait until water stops moving towards the vacuum and only bubbles are coming through

### 🔌 NOTES

**Jed Fuhrman** 10 Aug 2015

If opened too fast bubbles go backwards.

### Filtering Protocol

## Step 8.

Open steel filter tank lid and slowly open tank bleeder valve to depressurize (SLOWLY)

### Filtering Protocol

## Step 9.

When pressure has dropped significantly push in steel tank lid, allow a few more minutes for water to drain through

### Filtering Protocol

## Step 10.

Disconnect clamp from bottom side of A/E filter, remove tube from “out” side of A/E

### Filtering Protocol

## Step 11.

Place Durapore on knees and swirl gently so all water goes into the filter flask

### Filtering Protocol

## Step 12.

Once water is out, open manifold slowly, fold up filter and place in whirlpack

🔗 **NOTES**

**Jed Fuhrman** 10 Aug 2015

Should see nothing on it.

Filtering Protocol

**Step 13.**

Remove Durapore “out” tube from filter flask, place A/E “out” tube onto filter flask

🔗 **NOTES**

**Jed Fuhrman** 10 Aug 2015

Need to reattach “in” Durapore to “out” A/E.

Filtering Protocol

**Step 14.**

Place A/E on knees, let water drain out into the filter flask as before

Filtering Protocol

**Step 15.**

Open manifold slowly, peel off ring of filter, discard, fold filter and place in whirlpack

🔗 **NOTES**

**Jed Fuhrman** 10 Aug 2015

Will be tinted in color.

Filtering Protocol

**Step 16.**

Okay to turn off pump now

🔗 **NOTES**

**Jed Fuhrman** 10 Aug 2015

If pump is turned off before filtering is over you need to close steel tank lines so the whole system stays pressurized. Use the black levers or knobs on the steel tanks to do this.