Primary Cells FAQ

What is the supply procedure?

The frozen vial of cells will be shipped in Dry ice while T25 flasks by themselves are shipped at room temperature.

Does ''Normal" mean undiseased tissue/organ?

Yes.

How often do I need to change the media?

The media should be renewed every 2-3 days

How should I store frozen vials of primary cells? Can a frozen vial be put back into liquid nitrogen after delivery?

In most cases, a vial of primary cells shipped in dry ice (-70°C) can be placed back into liquid nitrogen and recovered at a later date by rapid thawing. However it is important to note that the viability of some sensitive cell types may be reduced by the temperature shift of such treatment, making recovery more difficult.

For this reason, we recommend that cells be thawed and placed into culture as soon after receipt as possible. It is best to minimize storage time at -70°C; as this is only used for shipping the cells.

abm does not warrant the viability of cells stored at -70C after shipments have been received.

How much Pen/Strep should I add to the culture media? (Only where stated in the culturing protocol provided).

We suggest 1% P/S (G255). It should not be required if your lab does not use P/S routinely however. G255 Penicillin-Streptomycin contains 10,000 units of penicillin (base), 10,000µg of streptomycin (base) per mL in WFI water. It is supplied as a 0.22 µm-filtered, 100X frozen liquid.

What is the recommended storage temperature?

In general, if you received:

Live cells: acclimatize for 3-4 hrs at 37C, 5% CO_2 and then change media afterwards.
Frozen cells: Immediately place cells in liquid nitrogen or dry ice; -180C.

Is it possible to freeze the cells again after thawing?

Unless specified otherwise in the datasheet, primary cell lines may be re-freezed after thawing. However, primary cells are usually not good for multiple passaging and they usually last only for up to 10-12 population doublings. Our primary cells are usually provided at passage 2, therefore they can be passaged for an additional 1-2 passages. For long term use, immortalized cells are preferred.

Can I seed frozen cells directly into collagen coated 6-well plates? Or I should seed in T25 flasks (G299) first, and then transfer to 6-well plate?

If you wish to use a 6-well plate, you can seed it directly into the plate; no need to go through T25 flask then to a 6-well plate.

Why is it important to determine the optimal seeding density?

The seeding density we recommend is for when cells are plated to a new vessel. The optimal seeding density should allow cells to attach to the surface and have room to proliferate.

If you seed too little, cells may not attach well to the surface. Seeding density is important as many cells need to be in close proximity for better growth. Cell-cell interactions allow cells to communicate with each other in response to changes in their microenvironment. This ability to send and receive signals is essential for the survival of the cell. In other cases, if the seeding density is too low, cells may attach but a retardation in cell growth is observed.

If you seed too high, the cells will attach but there is insufficient room for further proliferation and they will stop replicating.

How many cells are each vial?

The number of cells in a vial is lot-dependent. A Certificate of Analysis stating the cell quantity of the vial will be provided with your order.