PROTOCOL FOR TRANSPORT OF CELLS

Cells can be shipped at room temperature if the destination is reachable in 24 hours or in dry ice for greater distances.

A- TRANSPORT OF CELLS AT ROOM TEMPERATURE

For transport of cells at room temperature, cells must be grown in a flask. (See: PRIMARY MYOBLAST CULTURE FROM FRESH HUMAN MUSCLE BIOPSY protocol)

Equipment and Materials

The following packaging material[1] is necessary:

- Primary packaging: The tightly closed flask containing the cells and the medium.
- Absorbent paper (kitchen paper)
- Bubble wrap
- Secondary packaging : Hard plastic container hermetically sealed (leak-proof plastic freezer containers or tubes with screw cap)
- Outer packaging : An approved insulated polystyrene box plus external cardboard package-box for the transport of biological material

Procedure

Fill up the flask with cell proliferating medium and close the flask tightly.

Preparation of the packaging:

1. Wrap the neck and cap of the flask with parafilm.
2. Wrap the flask in **absorbent paper** (kitchen paper), then in **bubble wrap**, and place it in a **plastic container**.
3. **Tighten cap of** plastic container
4. Then put the plastic container in the **package-box**.
5. Enclose the the following documents :

the **Transport Document**
the **Safety Instructions Document**

6. Label the package-box clearly on two separate labels, so that it is easy to read and to identify the **sender**'s and **recipient**'s addresses, and give all the information necessary for the delivery and the **type of storage**.
7. The **label** must indicate: "**DIAGNOSIS SAMPLE(S) – UN 3373"**

See also the PROTOCOL FOR CONDITIONING AND TRANSPORT OF BIOMATERIALS for "Regulatory obligations related to the UN numbers".

Transport of Samples

1. Samples shall be picked up at the sender's institution
2. The carrier must be accredited for the transport of dangerous goods
3. For transport to foreign countries, both the sender and the recipient must have an import-export authorisation for biological material.[2]

[1] The packaging material is approved by the **Regulation on Transport of Biological Material (ADR) in force as of January 1st 2005.**
[2] Authorisations are delivered by the national or local authority

B- TRANSPORT OF CELLS IN DRY ICE

For transport of cells in dry ice, cells must be frozen (see FREEZING, CRYOPRESERVATION, STORAGE AND REACTIVATION OF CELL LINES protocol).

Equipment and Materials

The following packaging material[3] is necessary:

- Primary packaging: The tightly closed flask containing the cells and the medium.
- Absorbent paper (kitchen paper)
- Secondary packaging : Hard plastic container hermetically sealed (leak-proof plastic freezer containers or tubes with screw cap)
- Outer packaging : An approved insulated polystirene plus external cardboard package-box for the transport of biological material
- Dry ice (15 kg are sufficient for about 72 hours if the package is kept refrigerated at intervals between shipping)

Procedure

Make sure that the secondary container and absorbent paper are pre-cooled in a freezer and that the dry ice is ready in the polystyrene box.

Preparation of the packaging:

1. Wrap the cryotubes in pre-cooled absorbent paper (kitchen paper), and place them in a pre-cooled, leak-proof **plastic container**.
2. **Tighten the cap of** the plastic container
3. Then put the plastic container in the **package-box**. Make sure that the dry ice is already in place in order not to thaw the cells.
4. Enclose the following documents:
    a. the **Transport Document**
    b. the **Safety Instructions Document**
5. Label the package-box clearly so that it is easy to read and to identify the **sender**'s and **recipient**'s addresses, on two separate labels, and give all the information necessary for the delivery and the **type of storage (at -20 °C)**.
6. The **label** must indicate: "**DIAGNOSIS SAMPLE(S) – UN 3373"**
7. Place on the package box the label UN 1845 indicating that the package contains dry ice.

See also the PROTOCOL FOR CONDITIONING AND TRANSPORT OF BIOMATERIALS for "Regulatory obligations related to the UN numbers".

Transport of Samples

1. Samples shall be picked up at the sender's institution
2. The carrier must be accredited for the transport of dangerous goods
3. For transport to foreign countries, both the sender and the recipient must have an import-export authorisation for biological material[2].

[3] The packaging material is approved by the **Regulation on Transport of Biological Material (ADR) in force as of January 1st 2005**.