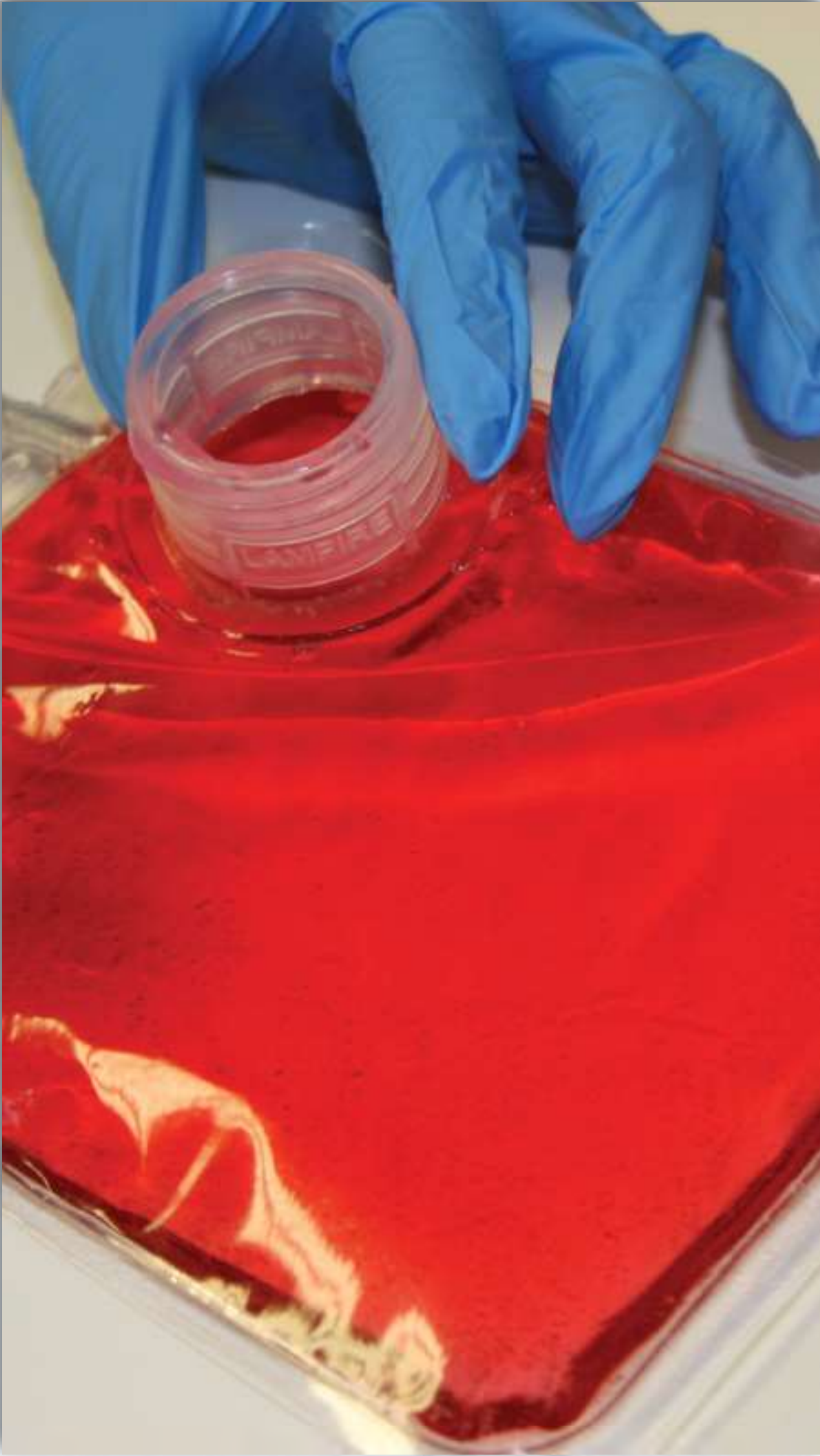




LAMPIRE
BIOLOGICAL LABORATORIES

OMINI C3[®]
CELL CULTURE BAG



OMNI C3[®] **CELL CULTURE BAG**



LAMPIRE OMNI C3[®] Cell Culture Bags offer a straightforward solution for cell culture, harvest, and storage. Designed with gas permeability, these single-use bags facilitate efficient gas transfer, eliminating the need for gassing cultures. Featuring options for screw cap fitments or Luer-lock/needle ports, these bags ensure aseptic inoculation and sampling, reducing the risk of contamination. The customizable configurations support scalability for production, while their durable design allows for use in centrifugation and long-term cryo-cell storage, reducing biological waste with their collapsible nature.

Ideal for suspension cell lines like hybridoma, CHO, and HEK293, these bags can also support adherent cell lines with the addition of artificial polyester mesh substrate or cell scaffold material. Available in multiple standard sizes or customizable configurations, they cater to diverse research needs. For optimal cell growth, explore our catalog of cell culture media products or consult our technical team for custom formulations.

Upgrade your cell culture workflow with LAMPIRE OMNI C3[®] Cell Culture Bags – designed for efficiency, scalability, and reliability in your research endeavors.

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APPEARANCE



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Location: Hall 1, Booth #B44



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INFORMATION SHEET

The Omni C3[®] bag is an easy-to-use, single-use device designed for the culture, harvest, and storage of cells. Constructed from USP 23 grade film, this vessel provides the high gas permeability required to support rapid cell growth, along with the durability necessary for centrifugation and long-term cryogenic cell storage.

In addition to a screw-cap fitment that facilitates cell harvesting, Omni C3[®] bags are available with integrated needleless Luer-lock ports and needle ports for aseptic inoculation and sampling. These ports also allow multiple bags to be connected in series, enabling efficient production scale-up.

Furthermore, Lampire can supply Omni C3[®] bags pre-filled and sterilized with various cell scaffold materials. These scaffolds can maximize the production of anchorage-dependent cells or support advanced stem cell culture procedures within the Omni C3[®] bags.

Culture

The high gas permeability of the Omni C3[®] bags eliminates the need for additional aeration and only a standard incubator is necessary to support the growth of several mammalian cell types including:

- Hybridomas
- CHO
- HEK293
- Jurkats
- Various stem cell lines

The Omni C3[®] bags can be adapted for the culture of insect, CHO-S and plant cells.

Centrifugation

The 50mL, 250mL and 1L Omni C3[®] bags fit into standard centrifuge adaptors and rotors, for single-step cell harvesting using standard centrifugation conditions. The large screw cap fitment allows easy removal of material from the bags.

Cryo-storage

The Omni C3[®] bags are fully stable under conditions of cryo-storage, displaying chemical resistance to DMSO and DMF and maintaining strength and flexibility at temperatures employed for long-term cell storage.

Applications

- Suspension Cells
- Hybridoma, CHO, HEK293
- Customizable Configurations
- Adherent Cells
- Anchorage Dependent Cells

Benefits

- High Productivity
- High Gas Permeability
- Increased Cell Counts
- Increased Antibody Yields
- Quicker Doubling Time
- Greater Cell Viability

Volume Sizes

- 50 mL
- 250 mL
- 1 Liter
- 2 Liter
- 5 Liter
- 10 Liter
- Custom

Storage Recommendation

- Store in Ambient Temperature.
- Do not leave in direct sunlight.

Shelf Life

- 3 years from the DOM.

Appearance

- Labeled Bag/ Test Result Label,
- Clear and Colorless

OMNI C3[®] CELL CULTURE BAG

CELL CULTURING PROTOCOL

Follow these steps to culture cells in OMNI C3[®] Cell Culture Bags. Adapt as needed for specific cell lines. Use sterile techniques in a biosafety cabinet.

1. Remove the Bag

Take the bag from its protective packaging. No pre-wetting with media is needed.

2. Calculate Cell Density and Volume

- Standard density: 300K cells/ml.
- For a 1-liter bag: 1×10^8 to 3×10^8 cells total.

3. Lay the Bag Flat

Position the bag flat in the biosafety cabinet and open the filling port.

4. Fill the Bag with Media

Add pre-warmed media using a large syringe or container, leaving space for cell culture.

Example: For 100ml seed culture, fill with 900ml media.

5. Add Seed Culture

Introduce the predetermined volume of seed culture. Tighten the filling port cap without twisting.

6. Incubate the Bag

Place in an incubator at 37°C with 5-7% CO₂.

Tip: Support the bag on a smooth surface when transporting.

7. Monitor Cell Growth

Check cell counts and viability every 3 days. Inspect for leaks or contamination.

8. Microscopy

Use an inverted microscope to observe cells directly in the bag.

9. Re-suspend Cells

Gently massage the bag during checks to re-suspend cells. Sample via the filling port.

10. Harvest Cells

Once the desired density is reached, harvest cells or supernatant. The bag can be centrifuged at 3500 x g.

11. Dispose of the Bag

Dispose of responsibly; bags are not for reuse to prevent contamination.

Environmental Efficiency

The OMNI C3[®] Cell Culture Bag promotes eco-friendliness by maximizing cell yield with fewer, compact containers, reducing waste.

OMNI C3[®] CELL CULTURE BAG

CELL CENTRIFUGATION PROTOCOL

Below is a fundamental protocol for use when centrifuging cells in the OMNI C3[®] Cell Culture Bags. This protocol is very basic and may require modifications to adapt to your specific cell lines and cell culture applications.

As with standard cell culture methods, all work involving the OMNI C3[®] Cell Culture Bags should be performed using sterile technique.

1. Cup Selection

Choose a cup size that fits the OMNI C3[®] bag.

2. Bag Loading

Place the bag in the cup with the fitment and cap at the top.

3. Balancing

Use a second cup of equal volume for balance, or balance multiple bags before centrifugation.

4. Centrifuge Loading

Place balanced cups in opposite positions in the centrifuge.

5. Set Parameters

Secure the lid, set time and RPM. The bag can withstand centrifugation at 3500 x g.

6. Bag Removal

After centrifugation, carefully remove the bag to avoid disturbing the cell pellet.

7. Harvesting

Remove the supernatant and collect cells or retain the supernatant.

8. Disposal

Dispose of the bags after use to avoid contamination.

OMNI C3[®] CELL CULTURE BAG

CELL CRYO-STORAGE PROTOCOL

Below is a fundamental protocol for use when Cryo-Storing cells in the OMNI C3[®] Cell Culture Bags. This protocol is very basic and may require modifications to adapt to your specific cell lines and cell culture applications.

As with standard cell culture methods, all work involving the OMNI C3[®] Cell Culture Bags should be performed using sterile technique.

1. Select the Proper Tube Holder

Choose the appropriate cryo-storage tube holder size to fit the OMNI C3[®] bag.

2. Load the OMNI C3[®] Bag

Gently place the OMNI C3[®] bag into the tube holder, ensuring the fitment and cap are positioned upwards at the top of the tube holder.

3. Pre-freeze the OMNI C3[®] Bag

- Place the OMNI C3[®] bag in the tube holder inside a -70 °C freezer.
- Ensure the bag is lying horizontally to prevent it from folding over on itself.

4. Freeze Completely

Allow the cell culture bag to reach a fully frozen state. This typically requires 2–4 hours.

5. Prepare the Liquid Nitrogen Vessel

Fill the liquid nitrogen vessel to a level where the cell culture bag will be suspended above the liquid, within the gaseous portion of the storage unit.

6. Load the Tube Holder into Storage Unit

Place the tube holder into the liquid nitrogen storage unit and securely close the lid.

7. Remove from Cryo-Storage

- After the designated storage period, remove the product from the cryo-storage unit.
- Follow the specified thawing requirements based on the product and intended use.

8. Harvest the Product

Once thawed, retrieve the product from the OMNI C3[®] cell culture bag using pouring or pipetting methods.

9. Dispose of the Cell Culture Bag

Dispose of the OMNI C3[®] Cell Culture Bag responsibly, as reuse is not recommended due to contamination risk.