Product Name

Name: AmnioType-2 Medium

Cat. No.: C3621-0100

Size: 100 mL

Product Description

The *in vitro* cultivation of amniotic fluid cells and chorionic villi is an essential part of every diagnostic cytogenetics laboratory, since the preparation of metaphase chromosome spreads is dependent upon obtaining cells in the division. Amniocentesis and chorionic villi sampling are the major invasive diagnostic procedures used for the detection of fetal chromosomal abnormalities. BIOAMF-3 is an improved medium, specifically optimized for the primary culture of human amniotic fluid cells and chorionic villi samples used in prenatal diagnostic testing.

The medium is supplied frozen and contains serum, glutamine, and an antibiotic.

Note

- For *in vitro* diagnostic use. The medium is not intended for therapeutic use.
- Use of VivaCell AmnioType-2 Medium does not guarantee the successful outcome of any prenatal diagnostic testing.
- Do not use AmnioType-2 Medium beyond the expiration date indicated on the product label.

Storage and Stability

The product should be kept at **-20°C**.
The product is **light-sensitive** and therefore should not be left in the light.
Shelf life: 36 months from date of manufacture.

Procedure

Thaw AmnioType-2 Medium at refrigerator temperature (2 - 8°C). Swirl gently and intermittently during thawing.

Note that the medium already contains L-glutamine and an antibiotic.

AmnioType-2 Medium may be used for:

- Primary culture of amniotic fluid cells
- Culture of passaged amniotic fluid cells
- Propagation of chorionic villus cells

The medium may be used in both open and closed culture systems.

It is recommended to use cells from 2.5 mL of amniotic fluid per coverslip.

The following protocol and the volumes indicated are only general guidelines for use.

In Situ culture of amniotic fluid cells:

1. Centrifuge 20 mL of amniotic fluid at 750 rpm for 10 minutes.
2. Carefully decant the amniotic fluid from the cell pellet into a sterile test tube.
3. Re-suspend the cell pellet with 2 mL of amniotic fluid.
4. Add 2 mL of AmnioType-2 Medium and swirl gently.
5. Culture 0.5 mL of the cell suspension on each coverslip in a tissue culture dish.
6. Incubate cultures at 37°C in a 5% CO_2 atmosphere.
7. Flood cultures on day 2 with 1.5 mL of AmnioType-2 Medium.
8. After 5 days, check the cultures for the presence of colonies.
9. After the colonies first appear (5 - 7 days), replace the medium with fresh AmnioType-2 Medium.
10. When the size of colonies is sufficiently large, proceed with harvesting.

Note: It is recommended to replace the medium with fresh AmnioType-2 Medium the day before harvesting.

Flask Method Culture of Amniotic Fluid Cells – Open and Closed Systems

Use the same procedure as for the *in-situ* culture, with the following adaptations:

1. Resuspend the cell pellet with 4 mL of amniotic fluid. Add 16 mL of AmnioType-2 Medium and swirl gently.
2. Culture 5 mL for each T25 flask. Place the cap loosely on the flask and incubate undisturbed at 37°C in a 5% CO_2 atmosphere.

   For Closed Systems: Flush each culture flask with 5% CO_2 – 95% air through 0.2 µm sterile filter for 20 seconds. Tighten the caps and incubate the flasks at 37°C.
3. Check all flasks for growth after 5 days.

Quality Control

AmnioType-2 Medium is tested for sterility, pH, osmolality, and endotoxin concentration. In addition, each batch is tested for cell growth using primary human amniotic fluid cells in a leading clinical cytogenetics laboratory.

Manufacturer

Shanghai Dr. Cell Co., Ltd.

Issue Date

June 2023

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.