



# CHANG Media FAQ

## Q. What are the differences between the CHANG Medium formulations?

A. CHANG Medium C, D, In Situ and Amnio are formulated specifically for prenatal cytogenetic testing of amniocytes, CVS (Chorionic Villus Sampling) and POCs (Products of Conception).

CHANG Medium Formula	Description
<a href="#">CHANG Amnio</a>	<ul style="list-style-type: none"><li>• Optimized for <i>in situ</i> methodologies.</li><li>• Contains 20% v/v Fetal Bovine Serum.</li><li>• Convenient, single complete frozen bottle.</li></ul>
<a href="#">CHANG Medium In Situ</a>	<ul style="list-style-type: none"><li>• Optimized for <i>in situ</i> methodologies.</li><li>• Contains 2% v/v Newborn Calf Serum.</li><li>• Contains 16% v/v Fetal Bovine Serum.</li><li>• Convenient, single complete frozen bottle.</li></ul>
CHANG Medium C	<ul style="list-style-type: none"><li>• Optimized for open and closed systems.</li><li>• Contains 6% v/v Newborn Calf Serum.</li><li>• Contains 6% v/v Fetal Bovine Serum.</li><li>• Consists of basal portion and either frozen or lyophilized supplement.</li></ul>
CHANG Medium D	<ul style="list-style-type: none"><li>• Optimized for flask and <i>in situ</i> methodologies.</li><li>• Contains 8% (v/v) Bovine Calf Serum.</li><li>• Contains 4% (v/v) Fetal Bovine Serum.</li><li>• Convenient, single complete frozen bottle.</li></ul>

CHANG Medium MF and BMC are specifically formulated for hemopoietic cell culture:

CHANG Medium Formula	Description
<a href="#">CHANG Marrow</a>	<ul style="list-style-type: none"><li>• Formulated for bone marrow specimens with basal medium IMDM.</li><li>• Includes 20% v/v Fetal Bovine Serum.</li><li>• Includes 10% v/v Giant Cell Tumor Medium.</li></ul>

CHANG Medium Formula	Description
<u>CHANG Medium BMC</u>	<ul style="list-style-type: none"> <li>• Formulated for bone marrow specimens with basal medium RPMI 1640.</li> <li>• Includes 20% v/v Fetal Bovine Serum.</li> <li>• Includes 10% v/v Giant Cell Tumor Medium.</li> </ul>
<u>CHANG Medium MF</u>	<ul style="list-style-type: none"> <li>• Formulated for hemopoietic specimens.</li> <li>• Includes 20% v/v Fetal Bovine Serum.</li> </ul>

**Q. What is the proper way to reconstitute the CHANG Medium C lyophilized supplement?**

A. First allow the supplement to equilibrate to room temperature. Once equilibrated, under aseptic conditions the appropriate amount of sterile, distilled water can be added to the lyophilizate. Swirl the vial gently. It may be necessary to incubate the vial at 37°C for 5 to 10 minutes to completely dissolve the supplement. Aseptically transfer the entire contents of the reconstituted CHANG Medium C supplement to the bottle of CHANG Medium B basal. Mix the complete CHANG Medium C well by swirling the bottle. Supplement aseptically with sterile L-glutamine, 10.0 mL/L. Antibiotics may be added if desired.

**Q. What quality control measures are performed on CHANG Medium formulations?**

A. All products manufactured at FUJIFILM Irvine Scientific are subjected to rigorous Quality Control testing before they are released for sale. CHANG Medium products are tested for sterility, mycoplasma, pH, osmolality, and endotoxin. Functional testing is performed by an independent clinical testing lab, the Genetics Center in Orange, CA. Details on tests performed are available on the Certificate of Analysis (CoA) which accompanies each shipment.

**Q. My CHANG Medium has changed from a yellowish salmon to more yellow in color. Can I still use it?**

A. When the media is more yellow in color it is an indicator that the pH has changed and is more acidic. In the Product Insert, we recommend placing the bottle in a 5% - 8% CO<sub>2</sub> incubator with the cap slightly loosened for about 30 minutes to equilibrate the pH.

**Q. How long can I store CHANG Medium once the bottle has been opened?**

A. We recommend that all CHANG Medium that are stored frozen, below -10°C, should be limited to no more than two (2) freeze/thaw cycles to preserve the performance of the product. Please review each of the specific product inserts for storage recommendations.

**Q. Does your CHANG Medium contain FGFs (Fibroblast Growth Factors) or insulin?**

A. Yes, all CHANG Medium formulations contain both FGFs and insulin.

**Q. What does the 1:250 ratio indicate for the product Trypsin (1:250) 2.5% 10X Solution?**

A. Trypsin Solution 10X is a 2.5% solution of 1:250 trypsin. The 1:250 designation indicates the tryptic activity based on standardized testing. This ratio indicates that one part trypsin will digest 250 parts casein in the USP activity assay.

**Q. What suggestions do you have to optimize amniotic fluid cell culture using a closed system?**

A. The main point of emphasis is to ensure that you use smaller flasks (i.e. T-12.5, not T25 or larger) to seed the pellet containing cells with no more than 2.5 ml of media. By using this method, the cells will be concentrated allowing for quicker attachment to the substrate and allow for easier exchange of growth factors among the cells. Another critical point is to ensure adequate gas exchange to prevent the pH from lowering below what is recommended to prevent the creation of an acidic environment.

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