

GET IN THE GAME

PRIMARY CELL THAWING MADE EASY!

THAWING CAN BE A STRESSFUL PROCESS FOR FROZEN PRIMARY CELLS. LEARN HOW TO THAW YOUR PRIMARY CELLS RIGHT THE FIRST TIME, AND AVOID COMMON MISTAKES THAT CAUSE POOR CELL SURVIVAL, REQUIRING YOU TO START OVER.

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Medium that is too hot or too cold can activate stress signaling pathways in your cells!

15 min

3. WARM CELL CULTURE MEDIUM FOR 15 MINUTES IN A 37 °C WATER BATH

2. READ ABOUT YOUR CELLS' THAWING PREFERENCES

4. ASEPTICALLY TRANSFER MEDIUM TO A CENTRIFUGE TUBE

70% ethanol is the best concentration for sterilizing because it reduces alcohol evaporation = increasing contact for optimal sterility!

7. SPRAY CRYOVIAL WITH 70% ETHANOL

5. REMOVE CELLS FROM LIQUID NITROGEN AND PLACE IMMEDIATELY ON DRY ICE

6. THAW CELLS IN A 37 °C WATER BATH FOR 2 MINUTES WHILE GENTLY AGITATING

2 min

A POWER OUTAGE!
YOUR INCUBATOR SHUT OFF LAST NIGHT, LEAVING YOUR CELLS IN THE COLD. THAW A NEW VIAL.

LOSE A TURN

A KNOWLEDGEABLE POST-DOC JUST ARRIVED!
YOUR RESEARCH HAS BEEN ACCELERATED!

ROLL AGAIN

8. PIPET CELLS FROM THE VIAL AND PUT INTO A CENTRIFUGE TUBE DROPWISE
Warning! Never pour your cells directly from the cryovial into the medium.

9. RINSE CELL VIAL WITH MEDIUM TO COLLECT REMAINING CELLS

12. RESUSPEND CELLS IN WARMED (37 °C) MEDIUM

11. GENTLY ASPIRATE THE SUPERNATANT WITHOUT DISTURBING THE PELLET

13. QUANTIFY CELLS USING A HEMOCYTOMETER OR CELL COUNTER
Roll the dice to establish your cell count.

14. PLATE CELLS AT THE RECOMMENDED DENSITY

15. PLACE IN INCUBATOR AND CHECK CELLS 24-48 HOURS LATER

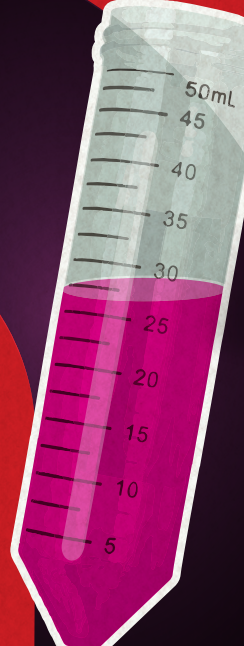
24+ hrs

Remember Step 2

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DRUG SCREENING AND DEVELOPMENT
METABOLIC DISEASE RESEARCH
CELLULAR PATHWAY ANALYSIS
REGENERATIVE MEDICINE



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ZENBIO IS COMMITTED TO BEING YOUR RESEARCH PARTNER. SINCE ITS INCEPTION IN 1995, ZENBIO HAS BEEN A RECOGNIZED LEADER IN THE DEVELOPMENT AND MANUFACTURE OF ADVANCED CELL-BASED RESEARCH PRODUCTS AND SERVICES. OUR EXPERTISE IS REFLECTED IN OUR COMMITMENT TO COLLABORATION AND WORLD-CLASS TECHNICAL SUPPORT. WE TAKE OUR CUSTOMERS' RESEARCH NEEDS SERIOUSLY, AND WE STRIVE TO PROVIDE THE HIGHEST QUALITY PRODUCTS AND SERVICES WITHIN EVERYONE'S REACH. OUR MODEST AND TIGHTLY CONTROLLED BALANCE SHEET ALLOWS US TO KEEP COSTS DOWN FOR YOU.

ZENBIO BELIEVES THAT RESEARCHERS HAVE MORE IMPORTANT WORK AT HAND THAN STRUGGLING WITH PROCURING TISSUE AND ISOLATING CELLS. SINCE THE BEGINNING, WE HAVE WORKED TO ESTABLISH A ROBUST TISSUE PROCUREMENT NETWORK AND BEST-IN-CLASS CELL ISOLATION TECHNOLOGIES TO SIMPLIFY RESEARCH ON PRIMARY CELL SYSTEMS. OUR TISSUE COLLECTION AND CELL ISOLATION PROCEDURES ARE ALL INSTITUTIONAL REVIEW BOARD (IRB) APPROVED, AND WE HAVE A RIGOROUS QUALITY CONTROL SYSTEM THAT ENSURES THAT ONLY THE HIGHEST QUALITY CELLS AND MEDIA ARE SHIPPED TO OUR CUSTOMERS.

WE'RE ALWAYS DEVELOPING NEW CELL SYSTEMS TO MEET YOUR RESEARCH NEEDS, SO PLEASE LET US KNOW WHAT YOU'RE LOOKING FOR. WE'RE HAPPY TO ADD IT TO OUR DEVELOPMENT PIPELINE.

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START

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Fetal Bovine Serum (FBS) alternative

The difference is CLEAR!



- Non-animal derived
- Stable supply chain
- Lot-to-lot consistency
- Cost effective: \$149/500 mL

- By-product of animal slaughter
- Batch variability
- Supply shortages
- Cost: >\$500/500 mL

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