

Macrophage colony-stimulating factor (MCSF)-Enriched Media Preparations
(April 2020)

Introduction

This protocol describes the preparation of MCSF-Enriched Media for cell differentiation procedures.

Definitions

DMEM: Dulbecco's Modified Eagle Medium

MCSF: Macrophage Colony Stimulating Factor

mcg: microgram

Reagents and Materials

- 500 mL DMEM with 4.5 g/L glucose, L-glutamine & sodium pyruvate
Lot#: _____
Manufacturer: Corning
- 100 ml MCSF
Note: get two 50 ml tubes from Na Ly
Manufacturer: In house
- 50 ml Human Serum
Note: obtained from Na Ly in a 1 Liter bottle (aliquoted into 50 ml tubes)
Lot#: _____
Manufacturer: In house
- 1 ml Gentamicin at 10 mg/ml (20 mcg/ml final concentration)
Lot#: _____
Manufacturer: Gibco
- 5 mg Ciprofloxacin (10 mcg/ml final concentration)
Lot#: _____
Amount Weighed: _____
Manufacturer: Sigma
- Stericup 500 ml Millipore Express PLUS 0.22 mcm vacuum filter
Lot#: _____
Manufacturer: Millipore
- Pipetmen
P 1000
Manufacturer: Fisher Scientific
- Pipetmen Tips
P 1000
Manufacturer: Fisher Scientific

Instrumentation

Water Bath

Manufacturer: VWR International

Protocol

1. Warm DMEM, MCSF, and Human Serum to 37°C in water bath
2. Remove 150 mL DMEM from bottle; discard
3. Add 100 mL MCSF to DMEM
4. Add 50 mL Human Serum to DMEM
5. Add 1 mL Gentamicin to DMEM
6. Add 1 mL media to tube with Ciprofloxacin; vortex to dissolve; add dissolved Ciprofloxacin back to DMEM
7. Invert bottle several times to mix contents
8. Vacuum filter through Millipore 0.22 mcm filter
9. Label bottle; Label _____
10. Store at 4 °C