UM-Chor1

Introduction

The UM-Chor1 cell line was developed by Dr. Mark Prince and John Henry Owen at the University of Michigan from a primary clival chordoma presenting in a 66 year old male. It is one of the fastest growing and easier to maintain chordoma cell lines.

Media formulation

Materials

- IMDM (Gibco, Cat# 12440079)
- RPMI 1640 (Gibco, Cat# 11875085)
- FBS, Certified, US (Gibco, Cat# 16000044) or equivalent quality FBS
- MEM NEAA (Corning, Cat# 25-025-CIR)
- GlutaMAX (Gibco, Cat#35050061)
- Nalgene Rapid-Flow Vacuum Filter (Thermo Scientific, Cat# 5660010)

(4:1) IMDM/RPMI 1640 + 10% FBS + 1% NEAA + 1% GlutaMAX media preparation protocol

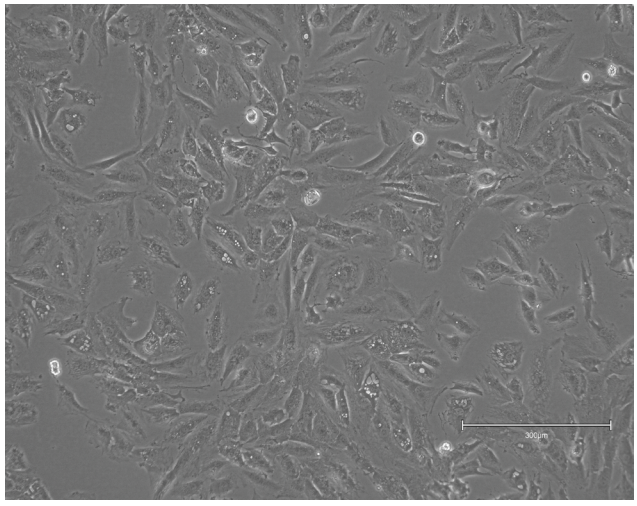
1. Prepare media in the bio-safety cabinet using aseptic technique. This media is made without antibiotics so extra precautions need to be taken.
2. Douse items in 70% Ethanol and place in bio-safety cabinet. Wait at least 10 minutes so ethanol has a chance to disinfect. Check for liquid at base of cap, if present, aspirate.
3. Create 500mL of media using volumes to the right by pipetting the media components into the upper compartment of a 500mL Nalgene vacuum filter, filter the components, and then store media at 4°C.

Component	Volume (mL)
IMDM	352
RPMI	88
FBS	50
NEAA	5
Glutamax	5
Total	**500**

Culturing characteristics

This cell line is thawed using CF Labs general thawing protocol, found here. This line can be grown on standard tissue culture treated, non-collagen coated vessel surfaces as this line's viability and growth are not dependent on collagen. Using the above media formulation and grown in the absence of collagen, UM-Chor1 cells exhibit a doubling time of approximately two and a half days. The cell line exhibits a heterogeneous physaliferous morphology. **(A)** UM-Chor1 representative image. The cells have a spindly morphology and exhibit a dispersed growth pattern, spreading uniformly across the plate rather than forming tightly packed clusters. **(B)** In a 96-well plate, plating 1,000 cells/well (3,125 cells/cm^2) will yield 15% confluence 36 hours after plating, labeled as day 0 where 36 hours is the time allowed for cells to adhere and spread out on the plate. The cells reach 90% confluence after six days. This information can be extrapolated to other vessel types.

A.



B.