Version Date: 2/27/25

Product Information Sheet

Human HepG2 Hepatocellular Carcinoma Expansion Media

Catalog Number: MR1010

Product Overview	
Product Name	**Human HepG2 Hepatocellular Carcinoma Expansion Media**
Catalog #s	MR1010
Quantity	450 mL
Product Form	Liquid
Cell Type	Human Hepatocellular Carcinoma
Reagents Needed	Customer choice of high grade or fully defined Fetal Bovine Serum (FBS) (not included) Penicillin/Streptomycin/Amphotericin B solution or Penicillin/Streptomycin solution, 100x (not included)[1]

Product Description

HepG2 Human Hepatocellular Carcinoma Expansion Media

HepG2 Human Hepatocellular Carcinoma Expansion Media is a high-performance culture medium specifically formulated to support the robust expansion and metabolic activity of HepG2 hepatocellular carcinoma cells [i]. This media provides essential nutrients, growth factors, and buffering agents to maintain optimal pH and cellular homeostasis, ensuring high cell viability and proliferation rates.

HepG2 cells play a crucial role in liver function research, cancer metastasis studies, and toxicity screening by actively secreting major plasma proteins, including albumin, α2-macroglobulin, α1-anti-trypsin, and plasminogen. HepG2 Media is an excellent choice for drug metabolism studies, liver toxicity assays, and cancer biology research.

Product Features:

- Optimized for HepG2 cell expansion CR1015-500 – Supports high-density culture and metabolic stability.
- Compatible with serum supplementation – Designed for use with customer-preferred animal-origin serum.
- Enhanced cell attachment and growth – Promotes uniform monolayer formation while sustaining hepatic functionality.
- Ideal for liver toxicity and cancer research – Supports HepG2 cells in various *in vitro* applications, including carcinogenesis studies and drug screening.

Recommended Uses for HepG2 Expansion Media:

- Expansion and maintenance of HepG2 hepatocellular carcinoma cells CR1015-500
- Drug metabolism and hepatotoxicity screening
- Liver disease modeling and regenerative medicine research

Shipping & Storage:

- Shipped with gel packs to maintain stability during transport.
- Storage recommendation: Store at 2–8°C and protect from light to maintain optimal media performance.

Note: This product is designed and tested to function with Cellular Engineering Technologies Inc. ("CET") product CR1015-500 Human HepG2 Hepatocellular Carcinoma Cells (not included). Although investigators are welcome to use this product with other hepatocellular carcinoma cells, CET cannot and will not guarantee this product's performance. Additionally, such use of third-party cell lines with this product will void CET's warranty should they not function as indicated. Please refer to CET's Terms & Conditions, which are available on www.cet.bio.

Product Image

Media Formulation Instructions

FOR RESEARCH APPLICATIONS ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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Defrosting / Preparation	Defrost 50mL of FBS (not included) and 5mL of antibiotic/antimycotic solution (not included) in a 37°C water bath until ice in the tubes are no longer visible. Immediately disinfect the tubes and the bottle containing this base media with 70% isopropanol (not included).
Mixing	Working in a laminar flow hood, remove 5mL of the base media from the bottle and discard. This and all other procedures must be done in a sterile manner. Add 50mL of FBS to this base media. Add 5mL of the antibiotic/antimycotic solution to the base media[1]. Cap the bottle containing the mixed liquid solution and gently swirl a few times. This formulated media is now considered complete media and ready to use with cells.

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Cell Thawing Instructions (for CR1015-500 Hepatocellular Carcinoma Cells)	
Thawing	Remove vial of Human HepG2 Hepatocellular Carcinoma Cells (CR1015-500) (not included) from dry ice. As soon as no ice crystals are visible in the vial, wipe the vial with 70% ethanol (not included), making sure no ethanol enters the vial.
Mixing	Take the entire contents of the vial, approximately 1 mL, and aliquot this in a T-25 tissue culture dish containing 10mL of complete media, pre-warmed to 37°C before use. Let cells sit overnight at 37°C, 5% CO_2 and 90% relative humidity (standard tissue culture conditions). The next day, aspirate off media carefully and add 10 mL of fresh, complete media, which has been pre-warmed to 37°C. Replace media every three days.
Observation	HepG2 cells tend to grow slowly at first and then very rapidly. Cells also tend to cluster and grow vertically. This is normal. When the tissue culture flask is confluent, split at 1:3 or 1:4 depending on how quickly you need your cells for subsequent experiments.

Storage and Stability		
	Storage Temperature	**Storage Time**
Human HepG2 Hepatocellular Carcinoma Expansion Media	4°C	3 months
complete media *(see Media Formulation Instructions)*	2-8°C	Not applicable
Avoid repeated exposure to room temperature.		

[1] These solutions should be portioned in 5mL aliquots, stored at -20C and never frozen/thawed. Although antimycotics are not necessary, CET highly recommends their usage for long-term cell culture. Antibiotics and antimycotics should not be used as an alternative to proper aseptic techniques.

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