



Hepatic Stellate Cell Growth Medium

Catalog #: HHSCM001

Product Size: 500 ml

Storage: 2-8°C

Shipping: Polar packs

GENERAL INFORMATION

Hepatic Stellate Cell Growth Medium is a specialized, complete formulation designed for the in vitro culture of both quiescent and activated primary hepatic stellate cells (HSCs). This medium supports initial plating and expansion while allowing for experimental control over the critical activation process—a key event in liver fibrosis.

Product is for Research use only.

STORAGE AND USE

The medium can be stored at 2-8°C. The product has a shelf life of 30 days from the date of opening. See expiration date on bottle.

CAUTION

Proper precautions must be taken to avoid exposure. Always wear proper protective equipment (gloves, safety glasses, etc.) when handling these materials. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination.

KEY FEATURES

- **Phenotype-Focused:** Formulated to support the unique biology of HSCs, including vitamin A storage.
- **Low-Serum/Defined:** Minimizes spontaneous activation, allowing researchers to induce activation controllably.
- **Quiescence Support:** Contains factors that help maintain HSCs in a quiescent state during initial culture.
- **Ready-to-Use:** Pre-mixed and sterile-filtered for convenience.

EXPERIMENTAL ACTIVATION

For fibrosis studies, once cells are attached (~24-48 hours), this medium serves as a baseline. Activation can be induced by adding pro-fibrotic stimuli such as:

- Transforming Growth Factor-beta 1 (TGF-β1)
- Platelet-Derived Growth Factor (PDGF-BB)
- Increasing the FBS concentration to 10%

EXPECTED CULTURE CHARACTERISTICS

- **Day 1-2:** Freshly plated HSCs appear rounded and phase-bright, containing refractive lipid droplets.
- **Day 3-7:** Cells begin to attach and spread, losing lipid droplets and adopting a myofibroblast-like, spindle-shaped morphology (spontaneous activation on plastic).
- **Proliferation:** Activated HSCs will proliferate and can be subcultured upon reaching confluence.

FOR RESEARCH USE ONLY

NEUROMICS REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. v1-09809

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QUALITY CONTROL DATA

Every lot is rigorously tested for performance and safety.

Test	Specification	Typical Results
Appearance	Clear, red liquid.	Complies
pH	7.2-7.4	7.3
Osmolality	290 - 320 mOsm/kg	305 mOsm/kg
Sterility	No microbial growth after 14 days.	Complies
Mycoplasma	Not Detected	Not Detected
Endotoxin	≤ 1.0 EU/mL	< 0.5 EU/ml
Performance (Viability)	≥ 80% post-thaw viability of primary HSCs.	≥ 85%
Performance (Activation)	Supports TGF-β1-induced α-SMA expression increase.	Confirmed (Lot-Specific Data)

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