

# HepatiCult™ Organoid Kit (Human)

Culture medium kit for initiation, growth, and differentiation of human liver organoids



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## Product Description

HepatiCult™ Organoid Kit (Human) (Catalog #100-0386) comprises components for three complete cell culture media to support robust initiation, efficient and long-term expansion, and differentiation of human hepatic organoids derived from ductal stem cell niches isolated from primary human liver tissue. These three media are also available as the following individual kits: HepatiCult™ Organoid Initiation Medium (Human; Catalog #100-0384), HepatiCult™ Organoid Growth Medium (Human; Catalog #100-0385), and HepatiCult™ Organoid Differentiation Medium (Human; Catalog #100-0383).

Hepatic organoids provide a three-dimensional in vitro organotypic culture system for the study of hepatic development, regeneration, detoxification, metabolism, and disease. Organoids initiated in HepatiCult™ Organoid Initiation Medium and expanded in HepatiCult™ Organoid Growth Medium (OGM) express self-renewal (LGR5, AXIN2), ductal (KRT19, SOX9, KRT7), and hepatic progenitor (HNF4A) markers. These organoids can be differentiated in HepatiCult™ Organoid Differentiation Medium to generate mature hepatic organoids that express hepatocyte markers (ALB, CYP3A4, MRP4) and exhibit upregulated albumin secretion and CYP3A4 activity relative to undifferentiated organoids.

Organoids expanded in HepatiCult™ OGM can be cultured in Corning® Matrigel® domes for routine culture, dilute Matrigel® suspensions in spinner flasks for scale-up, 96- and 384-well plates for high-throughput screening applications, and organoid-derived two-dimensional monolayers on Transwell® inserts for disease modeling applications. These organoids can also be cryopreserved for later use, remaining highly viable and retaining their capacity for further differentiation when thawed and cultured in HepatiCult™ OGM.

## Product Information

All components listed below are sold as part of the four indicated kits and are not available for individual sale.

NAME	COMPONENT #	QUANTITY	STORAGE	SHELF LIFE
<b>HepatiCult™ Organoid Kit (Human) (Catalog #100-0386)</b>				
HepatiCult™ Organoid Basal Medium (Human)	100-0387	3 x 95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
Organoid Supplement	100-0191	50 mL	Store at -20°C.	Stable until expiry date (EXP) on label.
HepatiCult™ Organoid Growth Supplement (Human)*	100-0389	2 x 5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.
HepatiCult™ Organoid Differentiation Supplement (Human)*	100-0388	5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.
<b>HepatiCult™ Organoid Initiation Medium (Human) (Catalog #100-0384)</b>				
HepatiCult™ Organoid Basal Medium (Human)	100-0387	95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
Organoid Supplement	100-0191	50 mL	Store at -20°C.	Stable until expiry date (EXP) on label.
HepatiCult™ Organoid Growth Supplement (Human)*	100-0389	5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.
<b>HepatiCult™ Organoid Growth Medium (Human) (Catalog #100-0385)</b>				
HepatiCult™ Organoid Basal Medium (Human)	100-0387	95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
HepatiCult™ Organoid Growth Supplement (Human)*	100-0389	5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.
<b>HepatiCult™ Organoid Differentiation Medium (Human) (Catalog #100-0383)</b>				
HepatiCult™ Organoid Basal Medium (Human)	100-0387	95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
HepatiCult™ Organoid Differentiation Supplement (Human)*	100-0388	5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.

\*This component contains material derived from human plasma. Donors have been tested and found negative for HIV-1 and -2, hepatitis B, and hepatitis C prior to donation. However, this product should be considered potentially infectious and treated in accordance with universal handling precautions.

## Directions for Use

For complete instructions, refer to the Technical Manual: Initiation, Growth, and Differentiation of Human Hepatic Progenitor Organoids Using HepatiCult™ (Document #10000008300), available at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.

## Related Products

For related products, including specialized cell culture and storage media, supplements, antibodies, cytokines, and small molecules, visit [www.stemcell.com](http://www.stemcell.com) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).



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