STEMdiff™ Hepatic Organoid Growth and Differentiation Media



Serum-free cell culture media for the growth and differentiation of hepatic organoids from hPSC-derived hepatocyte-like cells

Catalog #100-1773 1 Kit Catalog #100-1774 1 Kit TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713 INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

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Product Description

STEMdiffTM Hepatic Organoid Growth and Differentiation Media support the serum-free growth and differentiation of hepatic organoids established from human pluripotent stem cell (hPSC)-derived hepatic progenitors and/or hepatocyte-like cells generated using STEMdiffTM Hepatocyte Kit (Catalog #100-0520). STEMdiffTM Hepatic Organoid Growth Medium (Catalog #100-1773) is used for the establishment, subsequent scale-up, and long-term expansion of hepatic organoids, which express proliferative (MKl67), ductal (KRT19 and SOX9), and hepatic progenitor (AFP, HNF4A) markers. These proliferative organoids can then be differentiated using STEMdiffTM Hepatic Organoid Differentiation Medium (Catalog #100-1774) to yield mature hepatic organoids that express hepatocyte markers (ALB, CYP3A4, ASGR1, and CPS1), secrete albumin, and exhibit CYP3A4 activity that can be modulated with inducers and inhibitors.

Hepatic organoids provide an expandable, three-dimensional, in vitro organotypic culture system for the study of hepatic development, regeneration, detoxification, metabolism, and disease. Organoids cultured in complete STEMdiff™ Hepatic Organoid Growth and Differentiation Media can be adapted to a range of culture formats, including dilute Corning® Matrigel® suspension cultures, organoid-derived monolayers, and 96- and 384-well culture plates for high-throughput assays and screens. Proliferative hepatic organoids can also be cryopreserved in CryoStor® CS10 allowing for workflow flexibility and organoid banking.

Product Information

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

NAME	COMPONENT #	QUANTITY	STORAGE	SHELF LIFE
STEMdiff™ Hepatic Organoid Growth Medium (Catalog #100-1773)				
STEMdiff [™] Hepatic Organoid Basal Medium	100-1770	95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
STEMdiff [™] Hepatic Organoid Growth Supplement*	100-1771	5 mL	Store at -20°C.	Stable for 2 years from date of manufacture (MFG) on label.
STEMdiff™ Hepatic Organoid Differentiation Medium (Catalog #100-1774)				
STEMdiff™ Hepatic Organoid Basal Medium	100-1770	95 mL	Store at 2 - 8°C.	Stable for 2 years from date of manufacture (MFG) on label.
STEMdiff [™] Hepatic Organoid Differentiation Supplement*	100-1772	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: Establishment, Growth, and Differentiation of Human Pluripotent Stem Cell-Derived Hepatic Organoids Using STEMdiff™ Hepatic Organoid Media (Document #10000031146), available at 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, or contact us at techsupport@stemcell.com.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED. FOR ADDITIONAL INFORMATION ON QUALITY AT STEMCELL, REFER TO WWW.STEMCELL.COM/COMPLIANCE.

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