



emulate

Protocol for Emulate Organ-Chips:

Live Staining of CLF Uptake into Bile Canaliculi

July 2, 2019

EP194 v1.0

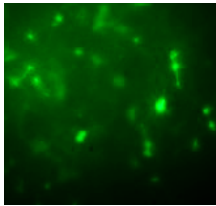
TITLE Live Staining of CLF Uptake into Bile Canaliculi	DOCUMENT EP194	VERSION 1.0
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Goals:	Key Steps:	Other Required Materials:
Visualize hepatocyte bile canaliculi and BSEP transporter function in Emulate Liver-Chip	Live staining and fluorescent imaging in Liver-Chip	<ul style="list-style-type: none"> • Corning® Cholyl-Lysyl-Fluorescein (CLF) (Fisher Scientific, Cat # 15630124) • Cell culture medium • Fluorescence microscope

Introduction

Corning® Cholyl-lysyl-fluorescein (CLF) staining is used to visualize the structure and function of bile canaliculi in polarized hepatocytes. CLF is a substrate for the canalicular bile salt export pump (BSEP), thus it can be used to visualize BSEP-mediated canalicular efflux, as well as to label the bile canaliculi structures.

Method

Sample type	Live Liver-Chip See Protocol EP155 Live Staining of Cells.
Recommended reagent dilution and incubation time	Dilute 5 mM CLF stock solution to final concentration of 5 μ M (1:1000) in culture medium. Incubate in the dark at 37°C for 30 minutes.
Representative image	 <p>Image of CLF staining (green) indicating hepatocellular polarization, bile canaliculi structure, and BSEP transporter function in hepatocytes in the human Liver-Chip (top channel).</p>
More information on vendor site	https://www.fishersci.se/shop/products/15630124/15630124

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