



emulate

Protocol for Emulate Organ-Chips:

Live Staining of Lipid Droplets Using AdipoRed

April 9, 2019

EP140 v1.0

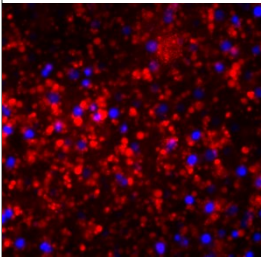
TITLE  Live Staining of Lipid Droplets Using AdipoRed	DOCUMENT EP140	VERSION 1.0
	DATE 09-APR-2019	PAGE 2 OF 3

Goals:	Key Steps:	Other Required Materials::
Visualization of intracellular lipid droplets in Emulate Organ-Chips	<ul style="list-style-type: none"> <li>Live staining and fluorescent imaging in Organ-Chips</li> </ul>	<ul style="list-style-type: none"> <li>AdipoRed™ Adipogenesis Assay Reagent (Lonza, Cat # PT-7009)</li> <li>PBS</li> <li>Fluorescence microscope</li> </ul> <p>Optional</p> <ul style="list-style-type: none"> <li>4% paraformaldehyde (PFA)</li> </ul>

## 1. Background

AdipoRed™ is used to localize and quantify intracellular lipid droplets.

## 2. Method

Sample type	Live Organ-Chip  See Protocol EP155 Live Staining of Cells.	
Recommended reagent dilution and incubation time	Dilute 1:40 in PBS. Incubate for 15 minutes at room temperature.  Note: Do not incubate for longer than 15 minutes as it will result in high background while imaging.	
Fixative (optional)	Chips can be fixed immediately after staining: 4% PFA for 15 minutes at room temperature.  See Protocol EP137 Fixation and Immunofluorescence (IF) Staining.	
Representative image		Image of AdipoRed (red) / nuclei staining (blue) indicating accumulation of lipids in hepatocytes in the human Liver-Chip (top channel).
More information on vendor site	<a href="https://bioscience.lonza.com/lonza_bs/US/en/Cell-analysis/p/000000000000186733/AdipoRed-Assay-Reagent%2C-20-mL">https://bioscience.lonza.com/lonza_bs/US/en/Cell-analysis/p/000000000000186733/AdipoRed-Assay-Reagent%2C-20-mL</a>	

TITLE  Live Staining of Lipid Droplets Using AdipoRed	DOCUMENT EP140	VERSION 1.0
	DATE 09-APR-2019	PAGE 3 OF 3

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