



emulate

Protocol for Emulate Organ-Chips:

ATP Quantification

May 13, 2019

EP185 v.1.0

TITLE ATP Quantification	DOCUMENT EP185	VERSION 1.0-draft11
	DATE 15-MAY-2019	PAGE 2 OF 2

Goals:	Key Steps:	Other Required Materials:
Quantify ATP levels from Emulate Organ-Chip lysate samples	<ul style="list-style-type: none"> • Prepare all reagents and standards • Lyse cells • Run the assay • Read plate 	<ul style="list-style-type: none"> • ATP Assay: CellTiter-Glo® (Promega, Cat. No. G7570) • Deionized water • Opaque 96-well plate • Plate reader with luminescence quantification capabilities

Introduction

The CellTiter-Glo® assay kit allows for the quantification of intracellular ATP levels. This endpoint can be used as a marker of cell viability and used in toxicity studies as a measure of cytotoxicity.

Method

Sample type	Organ-Chip lysate See Emulate Protocol EP135 Cell Lysis for Protein Extraction.
Recommended cell lysate dilution	1:10 Note: ATP levels will change depending on cell injury status or based on donor-to-donor variability. Therefore, sample dilutions may need to be modified to accommodate different experimental conditions or cells from different donors.
Run assay as described on supplier site	https://www.promega.com/resources/protocols/technical-bulletins/0/celltiter-glo-luminescent-cell-viability-assay-protocol/

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