



emulate

Protocol for Emulate Organ-Chips:

LDH (Cytotoxicity) Assay

April 7, 2019

EP160 v1.0

TITLE LDH (Cytotoxicity) Assay	DOCUMENT EP160	VERSION 1.0
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Goals:	Key Steps:	Other Required Materials:
Quantify lactate dehydrogenase (LDH) levels from Emulate Organ-Chip effluent samples	<ul style="list-style-type: none"> <li>Prepare all reagents, samples, and 100% cell lysate samples</li> </ul>	<ul style="list-style-type: none"> <li>CytoTox 96® Non-Radioactive Cytotoxicity Assay kit (Promega, G1780).</li> <li>Plate reader capable of recording absorbance 490 or 492 nm</li> </ul>

## 1. Method

Sample Type	Organ-Chip effluent See Emulate Protocol EP124 Effluent Sampling.
Recommended assay flow rate (Liver-Chip)	30 µL / h
Recommended effluent dilution	<p>No dilution: Samples are loaded neat</p> <p>Notes:</p> <ul style="list-style-type: none"> <li>Sample dilution may need to be adjusted further to accommodate for any experimental modifications by the user.</li> <li>To measure maximum LDH release (100% cell lysate), follow manufacturer's protocol. To perform cell lysis on a chip, see Emulate Protocol EP135 Cell Lysis for Protein Extraction.</li> <li>Store effluent samples at room temperature prior to this assay.</li> <li>Refrigeration or freezing of samples will deteriorate LDH enzyme and negatively affect assay data.</li> </ul>
Run assay as described on supplier site	<a href="https://www.promega.com/Products/Cell-Health-Assays/Cell-Viability-and-Cytotoxicity-Assays/CytoTox-96-Non-Radioactive-Cytotoxicity-Assay/?fq=G1780&amp;catNum=G1780">https://www.promega.com/Products/Cell-Health-Assays/Cell-Viability-and-Cytotoxicity-Assays/CytoTox-96-Non-Radioactive-Cytotoxicity-Assay/?fq=G1780&amp;catNum=G1780</a>

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